NAVAL WAR COLLEGE REVIEW

Report Documentation Page

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NAVAL WAR COLLEGE REVIEW

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Understanding Piracy

Fish, Family, and Profit
Gary E. Weir

The roots of piracy off the Horn of Africa are local and complex, and the solution will require the sustained and innovative contributions of combined naval forces operating in a variety of roles.

Piracy and Armed Robbery in the Malacca Strait
Catherine Zara Raymond

Whatever the flaws of the efforts of littoral states to control piracy in the Malacca Strait, the threat has indeed been sharply reduced, though it will not be eradicated while the root causes remain. The antipiracy activity of other states might be better directed elsewhere.

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David Rosenberg

Piracy in the South China Sea is not now as severe as sometimes asserted, but the potential exists. Control is complicated not only by the nature of the motivations of pirates but also by competing, conflicting, and overlapping interests of the littoral states, other nations, and the shipping industry.

Asia Rising

Thinking about the Unthinkable
Toshi Yoshihara and James R. Holmes

If, for whatever (but readily imaginable) reason, Japan decided to "break out" as a nuclear-weapons power, how might it do so? How long might it take? And what would its allies and neighbors, friends and otherwise, do then? A discussion of naval strategy and deterrence in Asia in such a case is sorely needed.

Book Reviews

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FROM THE EDITORS

No one imagines that piracy today constitutes the kind of menace it once did in certain parts of the globe—not least in our own hemisphere, as we can learn from a recent popular film trilogy. But there can be little question that the dramatic upsurge in pirate attacks on international commercial shipping in the waters off Somalia in recent months has gotten the world's attention, particularly because the problem has been so resistant to easy solution. Like the mythical Captain Jack Sparrow, Somali pirates have proven surprisingly competent. Moreover, the combined effect of legal uncertainties and humanitarian inhibitions that come into play in dealing with crime on the high seas today has too often seemed to paralyze Western governments and navies—not least those of the United States. Like terrorism and narcotics smuggling, piracy is a security problem that, while frequently operating at the level of mere annoyance, nevertheless poses substantial if not intractable challenges to law enforcement and military authorities alike. In this issue, several contributors focus on the question of policy responses to piracy within the larger context of understanding contemporary piracy as such, with particular attention to its economic dimensions.

In "Fish, Family, and Profit: Piracy and the Horn of Africa," Gary E. Weir traces the origins of contemporary piracy in this troubled region to the collapse of the local fishing industry as well as that of a functioning Somali state during the 1990s. Catherine Zara Raymond, in "Piracy and Armed Robbery in the Malacca Strait: A Problem Solved?" argues that piracy in the strategically critical Strait of Malacca, unlike that in the waters off Somalia, has been successfully managed if not entirely eliminated by the efforts of the local littoral powers. In a somewhat more pessimistic assessment, "The Political Economy of Piracy in the South China Sea," David Rosenberg emphasizes the continuing inadequacy of coordination within and between states throughout the region and beyond to deal with a persisting threat. All three of these papers, it should be added, will appear in due course as part of a larger collection on this subject: *Piracy and Maritime Crime: Historical and Modern Case Studies,* edited by Bruce Elleman, Andrew Forbes, and David Rosenberg (forthcoming in late 2009 or early 2010 from the Naval War College Press as Newport Paper 35).

In "Thinking about the Unthinkable: Tokyo's Nuclear Option," Toshi Yoshihara and James R. Holmes, both on the faculty of the Naval War College, offer a useful reminder that Japan remains not only a key American ally in the Far East but potentially an independent actor capable of having a dramatic impact on the security environment in that region. While admitting and indeed stressing the purely hypothetical character of their analysis, Holmes and Yoshihara make an intriguing case that the Japanese have a plausible path to an affordable sea-based nuclear deterrent force should they choose to avail themselves of it in the future. In another contribution to our "Asia Rising" rubric, Commander Todd A. Hofstedt, USN, provides a comprehensive survey of recent Chinese activities on the African continent. He urges the United States, and in particular its newly established Africa Command, to work with rather than against China in serving African needs and common interests in the region. This article, by a recent Naval War College graduate, usefully supplements the extended treatment of Africa in the Winter 2009 issue of the *Review*.

The March 2009 confrontation between U.S. and Chinese vessels in the South China Sea has reminded us again of the volatility and potentially severe consequences of disagreements between states over maritime legal matters. Captain Raul Pedrozo, USN, until recently the Staff Judge Advocate for the U.S. Pacific Fleet, provides in his "Close Encounters at Sea: The USNS *Impeccable* Incident" an authoritative though unofficial analysis of this episode and its implications. His exhaustive discussion makes it clear that China's aggressive actions find no support in current international maritime law or state practice. A wider perspective on recent trends in the international legal regime at sea is offered by Commander James Kraska, USN. Commander Kraska argues that law is increasingly shaping the behavior of maritime states today, in ways congruent with, though perhaps not sufficiently recognized in, the U.S. Navy's recently promulgated maritime strategy. Both authors are recent additions to the International Law Department of the Naval War College.

Finally, Commander Steven C. Boraz, USN, provides an informed overview of an issue that has gained steadily in prominence since 9/11. His article "Maritime Domain Awareness: Myths and Realities" is a useful analysis of common misconceptions that tend to understate the complexity of this challenge and lead planners to grasp at simplistic solutions. Boraz argues for the creation of "maritime interagency task forces" operating on a regional basis to fuse the full range of relevant information in support of Navy (and Coast Guard) global maritime security efforts as well as the safety of the homeland.

CHINA MARITIME STUDIES

The China Maritime Studies Institute (CMSI), in the Naval War College's Center for Naval Warfare Studies, was established in 2006 to support the research needs of the U.S. Navy by increasing knowledge and understanding of the maritime dimensions of the rise of China. It conducts related research in energy, global commerce, law of the sea, maritime technologies, merchant marine, naval development, naval diplomacy, and shipbuilding.

In 2008, working through the Naval War College Press, it founded the unique China Maritime Studies series, of which the first title was *A Comprehensive Survey of China's Dynamic Shipbuilding Industry: Commercial Development and Strategic Implications,* by Gabriel Collins and Michael C. Grubb. The second, *Scouting, Signaling, and Gatekeeping: Chinese Naval Operations in Japanese Waters and the International Law Implications,* by Peter Dutton, has recently appeared. Both are available online, at www.usnwc.edu/cnws/cmsi/publications.aspx. For printed copies, contact the institute's director, Dr. Lyle Goldstein, at the addresses, etc., given at www.usnwc.edu/cnws/cmsi/default.aspx.

A third title, *Chinese Mine Warfare: A PLA Navy "Assassin's Mace,"* by Andrew Erickson, Lyle Goldstein, and William Murray, is now in preparation. CMSI is committed to deep scholarship on Chinese maritime development, as this new series demonstrates. Manuscripts by external contributors will be considered.

"THE CONFERENCE ROOM"

We've set up on our website a page for responses to issues raised in the *Review,* to be known as "The Conference Room"—supplementing our print "In My View" department but less formal and quicker in turnaround. Submit postings by e-mail to "ConferenceRoom@usnwc.edu." Full procedures, rules, and caveats appear on the site.

*Rear Admiral James "Phil" Wisecup became the fifty-second President of the U.S. Naval War College on 6 November 2008. He most recently served as Commander, Carrier Strike Group 7 (*Ronald Reagan *Strike Group), returning from deployment in October 2008.*

A 1977 graduate of the U.S. Naval Academy, Rear Admiral Wisecup earned his master's degree in international relations from the University of Southern California, graduated from the Naval War College in 1998, and also earned a degree from the University of Strasbourg, France, as an Olmsted Scholar, in 1982.

At sea, he served as executive officer of USS Valley Forge *(CG 50) during Operation* DESERT STORM. *As Commanding Officer, USS* Callaghan *(DDG 994), he was awarded the Vice Admiral James Stockdale Award for Inspirational Leadership. He served as Commander, Destroyer Squadron 21 during Operation* ENDURING FREEDOM *after 9/11.*

Ashore, he was assigned to NATO Headquarters in Brussels, Belgium; served as Force Planner and Ship Scheduler for Commander, U.S. Naval Surface Forces, Pacific; and served as action officer for Navy Headquarters Plans/Policy Staff. He served as a fellow on the Chief of Naval Operations Strategic Studies Group; as Director, White House Situation Room; and as Commander, U.S. Naval Forces Korea.

Rear Admiral Wisecup's awards include the Defense Superior Service Medal, Legion of Merit, Bronze Star, and various unit, service, and campaign awards.

This is a professional graduate institution, where "the U.S. Navy connects to the world."

ADMIRAL STANSFIELD TURNER put a fine point on something very important here at the Naval War College, and that is excellence in scholarship—but not scholarship for its own sake. Scholarship here must serve a purpose—support the Navy and the nation, which it does. This is one of the things that make this institution unique, as we prepare to enter our 125th year of service. After four months in Newport, one thing in particular has become clear to me: many of our people in uniform do not understand what goes on at the Naval War College and have not read much about our own Navy's history or culture. How do I know this? By using myself as a data point, as a serving flag officer, carrier strike group commander—though I am a 1998 NWC graduate and was a fellow on the 2003 Chief of Naval Operations (CNO) Strategic Studies Group (also in Newport), my first six months in this assignment revealed just how much I did not know about the College.

Without going through an extensive "laundry list" of events such as lectures, conferences, and war games, or talking about the curriculum and the distinguished faculty, let me put it to you this way: there is a lot happening here, and it is not mere churning in some vacuum or some "academic ivory tower" pursuit. This is a professionally focused, graduate institution. It is accredited by the New England Association of Schools and Colleges, which accredits universities in the Northeast. American graduates are awarded a master of arts degree in national security and strategic studies. It has a unique student body, our next generation of leaders, many arriving here directly from the front lines in Afghanistan and Iraq, other overseas postings, Pentagon assignments, or ship, squadron, or battalion command. They are a motivated and purpose-driven group.

Here in residence in Newport in our intermediate- and senior-level programs are normally about six hundred students, about half Navy and half other services and agencies, and somewhere around a hundred international students, from almost fifty countries. Teaching them is a faculty numbering over 150, nearly half of whom are military, of whom in turn nearly thirty are from the other services—so do the math on the rich student/faculty ratio. It's a sophisticated, small seminar approach that hones students' analytical and writing skills.

There are currently about thirty international alumni who are chiefs of their navies or chiefs of defense, and many of them know each other from their year at Newport. In fact, in October the International Seapower Symposium will reunite chiefs of navies and other sea services from all over the world.

Before you roll your eyes and tell me, "Okay, so what?"—before you ask me, "Why do we send naval officers here, who can't afford to take a year off?"—let me tell you, it's *not* a "year off," and more important, we can't afford *not* to send them here. The problems the Navy and the nation are facing are just too complex to be handled by officers who only have an "on the job" education and those problems are not getting easier. The program here is not preparation for officers' next duty assignments, it's preparation for the big events and huge decisions they may have to take or try to influence in the future—an investment, both personal and professional.

This is not a new issue—Admiral William Sims, in his 1912 pamphlet *The Practical Character of the Naval War College,* pointed out that "too many officers assume knowledge will come to us as a result of a faithful discharge of our duties as we advance in years and grade toward positions of command and responsibility. So far is this from the truth that no apology seems necessary for any length of illustration that may be required to show its fallacy, and its extreme danger."[1]

For the current students, here is an example of what you are preparing for, and a short story. Our very experienced information and archival staff here in Newport found me a copy of Admiral Harry E. Yarnell's November 1938 report "Situation in the Pacific."[2] Why does this matter? Well, for starters, it is fascinating and very well written; more important, of course, it was forwarded to CNO about three years before Pearl Harbor. Admiral Yarnell warned his leaders (along with the Naval War College) in a very cogent situation report on the Pacific, providing not only background but advice and an indication that time was running out, all from someone on the scene. It's worth reading (it was declassified in 1972). Yarnell, for those who don't know his story well, saw service in the Spanish-American War, was a Naval War College graduate, worked on Sims's staff during the First World War, and, after working on innovative use of carriers during war games at sea, eventually became Commander in Chief, Asiatic Fleet, during the critical years 1936–1939, where he compiled this report.[3]

He served this nation well, for fifty-one years and in three wars, from 1893 to 1944.

It seems to me that there will always be a demand for this kind of synthesis, cogent writing, and ability to state clearly and concisely what should be done. For the students studying at the Naval War College, whether here in Newport, in fleet seminars, or online, the mandate is clear—in the near future, many of you will need to be able to digest an enormous amount of information, think critically about it under time pressure, and distill it into something your admiral, your commander, or your president can use. The nation needs this type of thinking and needs it from our uniformed military officers—lest we abdicate our responsibility and our profession, to paraphrase Admiral Turner. That means you. For me, the point came home five years after NWC graduation, when I worked in the White House Situation Room.

Let me give you some other examples of the practical scholarship currently in progress here at the Naval War College.

The "final exercise" of the core National Security Decision Making course, which puts nineteen seminars in a weeklong pressure cooker to synthesize concepts of strategy development, policy formulation, and strategic leadership, has been briefed to me by Dr. David Chu and Ambassador Larry Dinger (chargé d'affaires in Burma and former NWC faculty member). Two interesting concepts that surfaced were recommendations for major Defense Department efforts to use alternative energy and encouragement to turn to a Civilian Response Corps ("super provincial reconstruction teams"), an approach that is actually under way now at the State Department. The opinions of international officers on these efforts were very interesting, and they were full players in the seminars.

The voice of the International Law Department (which I have learned is one of the few in military education institutions anywhere in the world) is heard on various United Nations law of the sea issues, such as exclusive economic zones and their impact on operations, as well as the Arctic, using a variety of means, such as lectures, articles, and workshops.

The Current Strategy Forum, to occur in mid-June this year, is the Navy leadership's opportunity to talk in Newport with invited guests about the way ahead for the Navy. For U.S. flag officers, it's also a chance to interact with civilian decision makers who are invited here. As in most major conferences, though great speakers are invited, the conversations "in the margins" can be as important as what goes on at the dais.

The International Seapower Symposium, which will be held 5–9 October, is actually the Secretary of the Navy's conference, one that brings together heads of sea services around the world. It is a signature event at the College—which is where, as CNO says, "the U.S. Navy connects to the world."

The China Maritime Studies Institute will run a summer workshop and a conference in December.

There are electives on Lincoln, the American Revolutionary War and the colonial military tradition, nuclear proliferation issues, issues in international economics (with case studies), the history of technology, and "small" wars. Our Halsey Scholars, Mahan Scholars, and Stockdale Scholars are working on a variety of warfare analysis, nuclear deterrence, and ethics/leadership issues.

I hope you get the idea. I'm just giving a sample. The idea is to show the remarkable variety and depth of the academic experience—and except for National Security Decision Making, I haven't even addressed the core-curriculum Strategy and Policy or Joint Military Operations courses.

Someone asked me if coming to the Naval War College was just a "ticket punch" for its students. At the time, I had literally just arrived, so I couldn't give him any answer except my own as a graduate. The next time I see him, I can honestly say that this professional graduate institution is relevant and ready; the faculty (brainpower accounting for over 80 percent of our budget) is more than capable. It's up to the Navy to get the right officers here, and then up to individuals to make the effort: do the reading, hone their writing skills, and prepare themselves to be critical thinkers as they take their places as leaders in the Navy. Clearly, the other services are sending top-quality individuals and future leaders to the Naval War College. For example, General Ray Odierno, our commander in Iraq, was recently recognized as a Distinguished Graduate, as have been General Mike Hagee (former Commandant of the Marine Corps), General James Cartwright (currently vice chairman of the Joint Chiefs of Staff), and Ambassador Christopher Hill (a well known diplomat), as well as Admirals William Fallon and James Stavridis. Presiding at the U.S. Naval War College is an honor and privilege, and it has been a challenge for almost 125 years—this year is no different. Come see for yourself or visit our website: www.usnwc.edu.
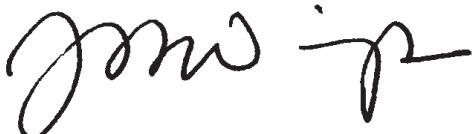
JAMES P. WISECUP
Rear Admiral, U.S. Navy
President, Naval War College

NOTES

1. Admiral Sims's pamphlet is available on the Naval War College website, at www.usnwc .edu/about/history.aspx.

2. Adm. Harry E. Yarnell, "Situation in the Pacific," report, 26 November 1938, A16-3, Shanghai, China.

3. Admiral Sims is an interesting person in his own right. He led our naval forces in World War I; wrote his memoir, *The Victory at Sea,* for which he earned a 1921 Pulitzer Prize; and became President of the Naval War College for a second time in 1919.

Gary E. Weir is chief historian of the National Geospatial-Intelligence Agency, in Bethesda, Maryland. A specialist in undersea warfare, intelligence tradecraft and collection, and related technologies, he is the author, most recently, of Rising Tide: The Untold Story of the Russian Submarines That Fought the Cold War *(2003, with Walter Boyne). Among his articles are two in this journal (Winter 1991, Autumn 1997). Dr. Weir is also founder and editor of the* International Journal of Naval History.

This article will appear as chapter 13 of Piracy and Maritime Crime: Historical and Modern Case Studies, *edited by Bruce Elleman, Andrew Forbes, and David Rosenberg, forthcoming in late 2009 or early 2010 from the Naval War College Press as Newport Paper 35.*

FISH, FAMILY, AND PROFIT

Piracy and the Horn of Africa

Gary E. Weir

T he frightening increase in piracy off the coast of Somalia since the turn of the present century demonstrates just how fast this kind of threat can emerge and how severe the difficulties involved in understanding and subduing it can be. Since 1992, in fact, there have been 3,583 piratical attacks worldwide. According to the United Kingdom's House of Commons Transport Committee: "This represents an increase from 1993 to 2005 of 168%. In the same period, 340 crew members and passengers died at the hands of pirates, and 464 received injuries. In 2005 alone piracy resulted in over 150 injuries and assaults and over 650 crew members were taken hostage or kidnapped."[1] Recent assaults on Japanese and French vessels near Somalia and the military response by the latter in April 2008 demonstrate the lasting significance of this problem and the complexity of its roots.[2]

Given the definition of piracy crafted in the United Nations Convention on the Law of the Sea 1982 (UNCLOS), most activity characterized by that name over the past decade actually comes far closer to armed robbery than actual piracy.[3] In Malaysia and Indochina, traditional hotbeds of this practice, most incidents reported by the International Maritime Bureau (or IMB, a division of the International Chamber of Commerce, or ICC) actually take place at the pier, while the ship rests at anchor, or in territorial waters, a distinction often not made in gathering the statistics.

The nature of this definitional problem in its Somali form presents a contrast with the historical Asian paradigm. Pursuit, seizure, and deprivation at sea in waters bordering the Gulf of Aden and in the Indian Ocean fall more clearly than the Asian events into the UNCLOS definition of piracy. This kind of lawlessness

has always presented political and international complexities, made more diffi-
cult by national jurisdictions, corporate motives, and the scattered geography of
the broader Asian region. In the Horn of Africa, part of the considerable expanse
patrolled by U.S. Naval Forces, Central Command and Combined Task Force
150, the geography and the jurisdictional difficulties, while not simple, do not
present the same level of complexity.

The proximity of politically unstable nations or territories has regularly
emerged as both cause of and *permission* for armed robbery or piracy at sea.[4] The
northeast and eastern coasts of Somalia, at the Horn of Africa, have caught the
attention of the IMB, which reported a very "alarming rise" in what it called pi-
racy beginning in midsummer 2005. Somalia's internal unrest, its lack of gov-
ernment control, and the authority of local clan warlords have created a
favorable climate for maritime crime, one that often gives thieves and pirates
permission to act freely.

The IMB has called for a combined response and solution—that is, interna-
tional naval assistance, especially along the Somali coast. It also initially encour-
aged merchant masters and navigators to observe a coastal approach limit of at
least fifty nautical miles. The threat to international commerce extends to cargo
and container ships, oil tankers, and even United Nations food and medical sup-
ply ships. In the Gulf of Aden, in the Indian Ocean, and off the Somali coast, the
uncontrolled activity of maritime criminals also presents a threat to the traffic
that supports American forces in Iraq. However, in evaluating the event statistics
collected by the IMB, one needs to remember that profitability and the safety of
business interests drives the ICC, making it eager both for peace and for some-
one to bear most of the cost for piracy countermeasures.

In September 2001, a group of nations agreed to form Combined Task Force
(CTF) 150 in response to UN Security Council Resolution 1373, which
committed them to regional patrols as part of the global war on terrorism. The
task force members include the United States, Pakistan, Australia, Great Britain,
France, and Netherlands, among others. The French very early began escorting
UN World Food Program ships into Mogadishu.[5]

BACKGROUND TO PIRACY IN SOMALIA

Historically, the IMB request for combined assistance resonates with the
nineteenth-century American experience against privateers and pirates based in
northern Africa and the Caribbean Sea. Two hundred years ago, the United
States needed logistical bases so that its armed forces could operate in the Medi-
terranean, thousands of miles from home. As the nineteenth century dawned,
British-held Gibraltar became an essential logistical base for U.S. operations
during the Barbary Wars. In that same conflict, the loan of shallow-draft vessels

from the Kingdom of Sicily also enabled the U.S. Navy to operate in shallow waters to enforce a blockade of Tripolitan ports. In this war, cooperation with local authorities and collaboration with allied navies made success possible. This formula brought success once again when the U.S. Navy worked closely with the Royal Navy in the 1820s against Caribbean piracy.[6]

During that same century and on the other side of the world, the Italians, French, and British controlled the Horn of Africa. The latter nation took the lead, due to the authority of the Royal Navy and the proximity of both imperial India and the presence of a British resident authority in Aden. Thus, the United Kingdom effectively exerted control over the strategically significant Somali Basin and the Gulf of Aden, at the southern entrance to the Red Sea. A formal protectorate emerged as British Somaliland, with the governing authority in nearby Aden administering British interests through 1905.

British authority in the area survived World War I, and the presence of significant air and naval power through the 1920s permitted the United Kingdom to sustain its position there. Losing control for just a short time to Italy during the East African campaign in 1940 and 1941, British forces once again asserted imperial authority and retained control of the region until both independence and unification with Italian Somaliland gave birth to the Somali Republic in 1960. This infant democracy lasted only nine years before succumbing to a coup and the dictatorship of General Muhammad Siad Barre, who initially established very close ties with the Soviet Union within the context of the Cold War. His loyalties later shifted when neighbor and traditional enemy Ethiopia allied itself with the Soviet Union.

Control over local waters provided a foundation for the local economy and the only hope of prosperity. Siad Barre maintained a small maritime force to protect the enormously rich fisheries in Somali waters, to sell (at a profit) fishery licenses to foreign companies, and to monitor access to regional ports that served the import and export trade through this strategic region south of the Red Sea and Suez. The humble Somali maritime force guarded these resources and also restricted the traditional regional tendency toward piracy and maritime crime. But when the Siad Barre regime collapsed in 1991, everything changed.

The evaporation of the Siad Barre regime opened the door to a period of instability. The naval task force associated with United Nations peacekeeping operations in Somalia (UNOSOM I and II) between 1991 and 1995 managed to monitor effectively the considerable maritime traffic through the important lanes of passage off the Horn of Africa. These routes historically cater to ships moving from Africa into the Gulf of Aden–Red Sea area. In most cases ships passed fairly close to the Somali coast to effect more economical passages. For each large modern merchant bottom that plies these waters one can also find

many more ships traditional to the region carrying cargo along routes regularly employed for centuries. Many of these vessels are the large cargo dhows so common in those waters.

Before unrest closed destinations or made calls too risky, a number of Somali ports regularly played host to ships moving through this portion of the Indian Ocean. These included Kismaayo, El Aolde, Merca, and El Maan. Mogadishu played this role as well until it was closed to foreign vessels in 1995. When the United Nations forces left in 1995, Somalia had no effective government, could not continue monitoring the waters off its coast, and descended into a period of clan warfare.[7]

PIRACY AND ECONOMIC SURVIVAL

The chaotic situation ashore and the damage inflicted on the country's economy and infrastructure had a very significant effect at sea. For many of the coastal village communities, offshore fishing represented a regular and significant livelihood. These small businessmen and their families depended completely on the rich fishing off the Somali coast as a source of treasure going back generations. In these cases the fishermen operated from small dhows, wooden canoes or boats, or more recently modern small boats, such as motorized fiberglass skiffs. They would use traditional techniques, for the most part gathering their catch using nets and then off-loading the take for sale upon returning to shore.[8]

The collapse of the Somali central government in 1995 opened the region to uncontrolled foreign exploitation. Large commercial fishing vessels began working off the Somali shoreline and very often inside the country's territorial waters and traditional domestic fishing areas. These large-scale fishing ships dwarfed the boats of the local fishing fleet and placed in danger a coastal subsistence economy based on traditional fishing practices.[9] The high-seas piracy problem emerged from this context.

When violence first erupted between these conflicting interests in 1995, it came as a surprise to no one. Many pirates armed themselves with weapons, which were easily available due to the struggle for power among the Somali clans. Somalia's 2,060-mile-long coastline was soon considered to be one of the "world's most dangerous stretches of water because of piracy."[10] By 2002, the IMB was reporting that the number of attacks had jumped from 335 in 2001 to 370 in 2002 and had increased its rating for the risk of attack from "possibility" to "certainty."[11]

PIRACY AND THE ABSENCE OF GOVERNMENT AUTHORITY

The first incidents between 1995 and 2000 occurred when Somali fishermen boarded foreign vessels and accused them of fishing illegally. The local

fishermen sought immediate compensation for catches taken in their traditional fishing areas. These actions occasionally took the form of efforts by local clan militias seeking to control their neighborhoods ashore and to coordinate actions against the foreign interlopers at sea. Many groups who boarded foreign vessels in this manner frequently referred to themselves as a "coast guard," protecting Somali waters and resources. In some cases this self-proclaimed coast guard took the vessels in question back to Somali ports, holding their cargoes and crews for ransom in compensation for lost revenue.

Foreign interests responded not by withdrawing but by arming the crews of their ships, hiring security forces, or bargaining with the local warlords or clan leaders for fishing "licenses." The latter came at prices high enough to make those documents a rather lucrative source of income for the clans ashore. Of course, the clans had no legal authority to offer licenses of any kind, but no central government existed to set the entire problem in a national context with legal agreements and effective enforcement power.[12]

The long-term solution to this problem must go beyond traditional coalitions, formal alliances, the power of regional neighbors, and the destruction of individual targets.

In the months immediately after the fall of the Siad Barre regime, both the Republic of Somaliland in the northern, formally British imperial, territory, and the Puntland Autonomous Region, formed in 1998, attempted to exert control and supervision of fishing and territorial waters. Both had rudimentary coast guards and dabbled in the lucrative business of fishing licenses.

To the south the internal strife and the offshore issues produced a different result. The clans fought over the right to control Mogadishu and took over the basic revenue sources usually reserved for central governments. Some clan warlords controlled the airports, others the maritime facilities and customs revenue, and still others focused on the profitable business of selling fishing licenses of dubious legality. Piracy, as an independent and openly illegal enterprise, developed only slowly, because clan leaders did not wish to have their licensing businesses interrupted.

Central Somalia has produced the most aggressive forms of piracy—well organized, clan related, and determined. In this region, traditionally called the Mugdug, poverty has reigned as long as memory serves, and the region's lack of resources has permitted it to escape the attention of the other regional clan warlords. For this area, the fishing industry provides virtually the only means of income.[13] Thus the people of the Mugdug suffered most from the foreign exploitation of the coastal fishing grounds. When clashes began between local

fishermen and the commercial fishing ventures, no clan interests or presumptive central authority intervened to prevent uncontrolled escalation.

In the dangerous environment of the Mugdug, legitimate efforts to limit both foreign exploitation of Somali resources and the growth of various related, profitable, but often illicit businesses collectively transformed themselves into a full-fledged venture in modern piracy. The developing piracy ring, initially acting under the direction of the Habir Gedir subclan of the Hawiye clan, emerged as a major threat to Horn of Africa commercial interests in 2004 under the leadership of Mohamed Abdi Afweyne. Under Afweyne's leadership, the organization flourished; the town of Harardhere became the ring's headquarters and gave its name to this potent enterprise. In spite of the transition to piracy, an important part of the justification, openly trumpeted by those involved, remained the need to protect from foreign exploitation Somali resources and the popular livelihood of coastal communities. The ring, portraying any fees collected or cargoes expropriated as legitimate products of the defensive effort, used the national turmoil and economic suffering as political and cultural cover for its illicit activities.[14]

When the Harardhere ring made the leap to high-seas piracy and much larger commercial vessels as victims, it naturally used the traditional tools available to Somali fishermen, with a bit of tactical refinement. Its skiffs, frequently seen in international press coverage, were employed because of the availability of small motorized boats of fiberglass construction with styrofoam cores. These boats litter the coastline, and the local fishermen, from among whom the Harardhere ring recruited its members, knew how to use them.

By 2004 the pirates began to use multiple skiffs in their work. A larger skiff provided room for provisions that might sustain a pirate crew, just as it would a fishing party, for up to two weeks, and at a range of two hundred nautical miles. It could also carry food and water, as well as providing the means and space for storing and repairing fishing nets, reflecting the more traditional occupational habits of the crew. In looking for targets, these fishermen-turned-pirates identified their prey visually. Thus, a patrol vessel or potential victim could hardly tell the difference at distance between a pirate and a legitimate fisherman.

In approaching any vessel two smaller skiffs, each with a crew of four or five, would place themselves astride the vessel, one to starboard and the other to port, with the larger skiff astern in pursuit. The pirates then placed one or more of their number on board the target vessel to intimidate the crew and clear the way for the rest of the boarding party, which would bring the captured vessel to port with the skiffs in tow. (In many recent cases CTF 150 patrols intercepting seized ships have first destroyed the towed skiffs to make sure the pirates remained on board and could not slip away.)[15]

Implemented in early 2005, this technique has resulted in some failures but also in some disturbing successes. The latter include the capture of MV *Feisty Gas,* a compressed-gas transport, in April 2005 and MV *Torgelow* the following October.[16] These major attacks as well as an attempt to take the cruise ship *Seabourne Spirit* in November 2005 drew international media attention, a warning to mariners from the IMB, and a response from international naval forces in the area. The IMB advised all merchant masters to keep their vessels two hundred nautical miles away from the Somali coast. The merchantmen most vulnerable tended to operate at ten knots or less, in daylight, with no emergency broadcast capability and no security force on board. Moving into Somali territorial waters proved especially dangerous, since the American component of CTF 150 could not operate within the twelve-mile limit.

All three episodes also brought up the legal and tactical issue of onboard armed security. *Seabourne Spirit* carried Gurkhas, former military personnel, as security, and this fact played a role in the vessel's ability to resist seizure. The masters and shipping companies did not favor arming the crew, however, and professional onboard security added expense. For many shipowners these measures also seemed to increase the likelihood of more violent clashes with pirates. The only other option seemed increasing the size of the crew to enable more effective ship security, enhance lookout capability, and reduce the debilitating effect of fatigue. The latter had become a critical factor, because the crew had to perform security functions in addition to its regular duties.[17]

ENTER COMBINED TASK FORCE 150

The presence of CTF 150, especially after the *Seabourne Spirit* incident, prompted a change in pirate habits. The Harardhere group began using captured low-value vessels as mother ships for the skiffs. In this they sought the advantage of surprise, by appearing to be part of the normal commercial traffic of the region.

In one case the U.S. Navy responded to an alert from the IMB in Kuala Lumpur that pirates had in this way (unsuccessfully) assaulted MV *Safina Al Bisarat,* a bulk carrier outside the two-hundred-nautical-mile safety zone off Somalia's central eastern coast. U.S. Central Command responded by sending the guided-missile destroyer USS *Winston S. Churchill* (DDG 81) to investigate. The warship located the dhow responsible for the attack, chased it down, and boarded it, after firing some warning shots by way of persuasion. The boarding party detained sixteen Indian nationals and ten Somali men. The Indians claimed that the Somalis had seized their dhow six days before near Mogadishu and had used it since to surprise and capture victims. The Navy investigated the

incident and discussed with international authorities the proper disposition of the men taken from the dhow.[18]

Ships assigned to the patrol area of Somalia had repeated encounters with pirates.[19] USS *James E. Williams* (DDG 95) assisted the North Korean crew of MV *Dai Hong Dan* in regaining control of its vessel after pirates seized its bridge in October 2007. The Koreans had kept control of both the steering gear and the engines, and with the assistance of the American vessel they successfully assaulted the pirates on the bridge. At the same time another American destroyer pursued a Japanese vessel reportedly

By 2002, the IMB . . . had increased its rating for the risk of attack [off the Somali coast] from "possibility" to "certainty."

hijacked by pirates off Somalia. As if to demonstrate the extent of the danger in these waters, the destroyers USS *Arleigh Burke* (DDG 51) and USS *Porter* (DDG 78) responded to a call for help from MV *Golden Nori,* a Japanese chemical tanker seized off the Socotra Archipelago near the Horn of Africa on 28 October 2007. When the destroyers drew near the captured ship, *Porter* used its main battery to destroy the skiffs being towed astern. *Arleigh Burke* then received permission from the tenuous transitional government of Somalia to enter territorial waters to subdue the ship. The Navy continued to track *Golden Nori* until the pirates abandoned it on 12 December.[20]

Somali national instability, of which maritime crime is one of the worst by-products, inevitably came into direct contact with the war in Iraq. In 2005, the IMB reported a rise in maritime lawlessness in the Arabian Sea. In spite of the proximity of warships, the ICC reported two attacks off the Basra oil terminal, two more at buoy anchorages, and another five in Iraqi waters on 19 and 20 November. In each case the perpetrators injured and robbed the crew and made away with arms, cash, personal property, and, occasionally, some rather advanced technologies.[21] In some Somali episodes the IMB and other sources have reported the use of fast pursuit craft against commercial targets as far as a hundred nautical miles out to sea. Virtually all reports confirm the use of sophisticated small arms and rocket-propelled grenades, as well as crude weapons. This activity represents a threat to life, property, and free navigation of the sea at the southern end of an area of great concern to the U.S. Navy Central Command and Combined Task Force 150.

The advent of the Council of Islamic Courts (CIC) in 2006, capable of confronting the clans and warlords, presented the prospect of Somalia as a haven for terrorists but not for pirates. While some of the more radical members of the courts supported al-Qaʿida and had little love for the United States, they had even less love for high-seas piracy, which they declared immoral. This produced

a challenge to Somali pirates when during 2006 the CIC briefly managed to re-open the port of Mogadishu without pirate interference to gather port-entry fees and other profits. However, the CIC's influence over piracy lasted only a very short time. A transitional-national-government force and the Ethiopian National Defense Force brought the brief reign of the council to a close and introduced uncertainty once again.

THE WAY AHEAD

On 22 April 2008, France, the United Kingdom, and the United States called for a United Nations resolution to support the nations determined to fight piracy off Somalia. Only one week before, the French armed forces had captured six Somali pirates who had seized the French-owned luxury yacht *Le Ponant* and held the crew of twenty-two for a week, hoping for ransom. The French government had the pirates taken to France for interrogation. Apparently undeterred, another contingent of pirates took a ship moving through the region from Dubai on 21 April; in addition, the Spanish navy went off in pursuit of a seized Spanish tuna boat taken with a crew of twenty-six off the Somalia coast. The French ambassador to the United Nations, Jean-Maurice Ripert, commented to the press that his country had no desire to endanger the law of the sea; the French, Americans, and the British, he said, simply wanted a mandate from the United Nations to take action against piracy in the name of the international community.[22] He explained, "The idea is to give a mandate, to call on states of the U.N. to tackle piracy by organizing patrols, reacting to acts of piracy, to take as many preventative measures as possible."[23]

In response to the increased threat of piracy off Somalia, on 2 June 2008 the UN Security Council adopted Resolution 1816, with the consent of Somalia—which, the resolution observed, "lacks the capacity to interdict pirates or patrol and secure its territorial waters." This resolution authorized foreign naval vessels to enter Somali territorial waters for an initial period of six months, which could later be lengthened by mutual agreement. This resolution also allowed foreign naval vessels to use "all necessary means" to repress acts of piracy and armed robbery at sea, consistent with relevant and existing provisions of international law.[24]

This resolution may result in stopping the pirates, but it does not address the underlying factors that created them in the first place. In looking for a solution, we need to recall the history of the problem. The Somali situation emerged from the exploitation of traditional fisheries and the inability of local fishermen to preserve their resources and livelihood. Thus, the long-term solution to this problem must go beyond traditional coalitions, formal alliances, the power of regional neighbors, and the destruction of individual targets. An international

framework of common applicable law, common enforcement, and common policy must extend beyond regional boundaries and political borders.[25]

Rather than reinventing the wheel, building upon existing successful civilian fisheries agreements might present the best model for not only strengthening those agreements but also extending them to provide greater security against maritime crime.[26] Developed in this way, the collaboration would feel inclusive, mostly civilian, and military only in a minimal sense. In Asia, the forms of cooperation developed by the South Pacific Forum Fisheries Agency, whose members have already agreed to enforcement collaboration, would certainly provide the basis for a framework that would address piracy and armed robbery at sea.[27]

Control over local waters provided a foundation for the local economy and the only hope of prosperity . . . [but] the collapse of the Somali central government opened the region to uncontrolled foreign exploitation.

In the immediate region of Somalia, concerned nations might look to the Regional Commission for Fisheries (RECOFI). This association counts among its members Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.[28] Its objectives include the development, conservation, and management of marine resources and the promotion of aquaculture. At the same time RECOFI has decided to regulate fishing methods and gear as well as the seasons for fishing and the extent of the catch.

Many of RECOFI's primary concerns and goals address the issues of central control and national sovereignty that triggered the so-called coast-guard actions off Somalia by local fishermen. The lack of such control has generated a pool of unemployed and desperate candidates ripe for recruitment into the pirate crews that have turned the Horn of Africa and the Gulf of Aden into such dangerous places. RECOFI has also embraced the need "to keep under review the economic and social aspects of the fishing industry." Regardless of its present nature, large-scale and increasingly deep-ocean piracy in Somalia originated from the desire of poor communities to save their livelihoods. In its present form RECOFI cannot entirely address the problem at hand, but it can certainly provide a framework upon which to build. Many other agreements exist that might serve the same purpose, and they touch every part of the world ocean.[29]

For their part, navies can inform and support locally enforced regional frameworks built upon agreements like RECOFI and upon the progress made in previous years by the Piracy Reporting Center in Malaysia, and its supporting organizations, created in 1992. Any framework must include all nations affected, regardless of political perspective or bilateral commitments. The same common

civilian and commercial interests that lead nations to agree on fisheries manage-
ment will help to address maritime crime.

More practical policy responses might include enabling both local authori-
ties and corporate countermeasures. Naval forces can provide mine counter-
measure vessels, should criminals lay mines in choke points or ports. Navies
should also offer to increase or enhance exercises, training, and cooperation to
assist regional or secondary maritime forces in undertaking these tasks. Naval
experience with unmanned aerial vehicles (UAVs) and ship security systems can
help the spread of best practices in the use of methods suggested by the Interna-
tional Maritime Organization, such as the Inventus UAV, ShipLoc, and Secure-
Ship. These measures would dovetail well with the strategy of supporting a re-
gional framework.

Any effort to explore a more global framework would obviously require more
multinational naval involvement. Addressing the Seventeenth International
Seapower Symposium on 21 September 2005 at the Naval War College, in New-
port, Rhode Island, Admiral Michael Mullen, U.S. Navy, then the Chief of Naval
Operations, began to explore the possibilities open to global navies: "As we com-
bine our advantages, I envision a 1,000-ship Navy—a fleet-in-being, if you will,
made up of the best capabilities of all freedom-loving navies of the world. . . .
This 1,000-ship Navy would integrate the capabilities of the maritime services to
create a fully interoperable force—an international city at sea."[30] For some naval
historians the admiral's statements seemed timely indeed. The Combined Oper-
ations Project led in 2005–2006 by the Contemporary History Branch of the U.S.
Naval Historical Center had examined the nature of effective naval coalitions
and their ability to address the varied threats on the high seas. In each of the case
studies, conducted by American, Canadian, Australian, and British historians,
communication and trust emerge as paramount. Without the trust engendered
by effective, well trained liaison officers, and frequent collaborative exercises at
sea, combined operations can quickly become exercises in futility.

Deliberate, frequent, and regular contact allowed his commanding officers to
broker the mutual understanding that served Vice Admiral Lord Nelson so well
two centuries ago. This dynamic has become even more necessary today, given
the potential contemporary barriers of language, culture, technology, and oper-
ational experience. The history of recent combined operations repeatedly
speaks to these critical but often overlooked personal aspects. In short, history
suggests that in naval operations as well as in international, civilian maritime
policy, "you cannot surge trust."[31]

Human relations emerge strongly as the primary asset or resource needed to
bring peace and enforcement to the maritime commons, including the Horn of
Africa. Commodore James Stapleton, Royal Australian Navy, the naval

component commander in the international military response to violence in East Timor in 1999, once made this very point in reflecting on the reasons for success in that operation. The naval component of the multinational United Nations task force supporting Operation STABILISE achieved a very high level of interoperability. Effective communication and division of labor brought to the effort in East Timor the kind of success currently sought off the Somali coast.

In a 2004 oral interview by the author, referring to the commanding officers of the ships under his temporary command for Operation STABILISE, Stapleton recalled that "they'd all come from a major exercise that was called off, the one that I was going to go to. So they'd had time in company and they'd worked with [USS] *Mobile Bay* before, they'd worked with [HMS] *Glasgow* . . , they'd worked with [HMNZS] *Te Kaha*. . . . I'd worked with these ships before, I knew the COs, I knew the capabilities of each of the ships. So we'd worked together pretty much for a lot of the time."[32] Combining proved relatively easy, as the relationships remained fresh and current and drew on strong common experience: "It was very much a one-on-one . . . with every country, but the way I spoke to them and the operation order for communications, the operation order for the flying program . . . , was the standard NATO signal which they all have."[33]

It was necessary to take measures consciously designed to build and renew the human network among ships and people, a relationship that cannot have the flavor of a single nation alone: "[I had people] from each country on my staff. . . . I had a Frenchman on my staff, I had a Canadian or two, engineers. I had New Zealanders. This became a problem for me then about classification, and what I could leave lying around . . . [i]ssues like that. And what was privileged information, and what wasn't. . . . It does make problems, but if you don't manage it, and I didn't have those guys and girls on my staff, for sure, then the coalition thing doesn't work."[34]

All this had to become as natural as the first cup of coffee in the morning, a fit so well engineered over time, socially and professionally, that it could become second nature:

> You hear people say, "I'm an Australian," but people in Australia still know what you mean when you say "I'll have a brew," a coffee, "I'll have a NATO standard" (that's white and two [sugars]). Maybe that's because that reflects my age . . . and I did a lot of training in the UK. So I knew NATO, and I know the publications. But if you're using ATP, the tactical publications, you can talk to any navy in the world, because everyone's got Allied Tactical Publications. You can also use international codes. So it was never really an issue about integration. . . . Everybody just fitted in.[35]

History strongly suggests that very often, ignoring these experiences, we have placed our emphasis elsewhere or viewed naval personnel simply as extensions

of platforms and technologies. We must recognize that the cultural expectations shaping naval careers have long militated against the role the international community needs many officers to play—the very role that can make combined action against Somali piracy most effective.[36]

As the first decade of the twenty-first century comes to an end, the Horn of Africa needs more than ever officers who can play these roles. A three-million-dollar ransom was paid in early January 2009 to free the Saudi supertanker *Sirius Star* from Somali pirates;[37] in response to that event, on 8 January Vice Admiral William Gortney, the commander of Naval Forces, U.S. Central Command, and of the Combined Maritime Force, announced the creation of Combined Task Force 151, dedicated exclusively to antipiracy operations.[38] Four days later Commodore Stapleton's homeland announced that it would join other international forces, including those of the United States and China, in the new mission against pirates in the Gulf of Aden and near the Horn of Africa.[39] A force adequate to address the symptoms of piracy seems near. What will the cure look like?

If navies intend to help keep the ocean open in an age of regional instability, piracy, and terrorism, combined operations regularly informed by professional historical perspective must become a permanent and essential part of naval practice. Addressing piracy in a way that goes beyond simple retaliation has proved very difficult. Recent historical experience in Asia suggests the ingredients of a possible solution to modern maritime crime, a solution that while naturally displaying the difficulties of crafting a working formula, shows promise.

Malaysia and China have traditionally opposed combined antipiracy patrols in the Asia-Pacific region, and their unsuccessful effort to collaborate raises a significant question. Are patrols the answer to piracy? Given that Asian maritime crime mostly occurs at the pier or at anchor, many navies openly question the efficacy of patrols. The Royal Malaysian Navy recently noted that ships, on average, actually report attacks about ten hours after the event. By that time, a responding patrol cannot help, as the criminals might be anywhere.[40]

Patrols address the symptoms but not the cause. If regional agreements on fisheries management form the basis for comprehensive security agreements to protect resources and regional economies, navies will have to play a variety of high- and low-profile roles to enable the agreements to take hold. Not all of the measures taken to ensure a safe, healthy, and shared ocean will take the form of overt naval action. Some still await definition and may recall times past when a modest naval presence directly advanced local economic interests in many and varied ways.[41] In the end, the solution to piracy is as local as the lost livelihood of a pirate recruit in one of the Harardhere camps along the Somali coast, and as

global as Admiral Mullen's international city at sea. If we can see the connection and act on it, the region can once again find both the rule of law and a way to sustain itself.

NOTES

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13. For conditions in the Mugdug see, for example, *ReliefWeb,* www.reliefweb.int/.

14. Andrew McGregor, "The Leading Factions behind the Somali Insurgency," *Jamestown Foundation,* www.jamestown.org/; "ONI Civil Maritime Analysis Department," *National Geospatial-Intelligence Agency,* www.nga.mil/; Donald J. Puchala, "Of Pirates and Terrorists: What Experience and History Teach," *Contemporary Security Policy* 26, no. 1 (April 2005), pp. 1–5.

15. For example, see the action of *Porter* in 2007 near the Horn of Africa: "U.S. Destroyer Pursuing Hijacked Ship in Somali Waters, Military Says," www.cnn.com/; also, "Pirates Attack UAE Ship off Somalia," asia.news.yahoo.com/. Many such instances can be found on the websites of the major international news organizations, such as CNN and BBC; Puchala, "Of Pirates and Terrorists," p. 5.

16. Most of the episodes mentioned here can be explored in greater depth by searching on the term "piracy" at www.imo.org, the site of the International Maritime Organization (IMO), and by reviewing the regular piracy warnings of the International Chamber of Commerce, at www.icc-ccs.org/imb/overview.php.

17. Koknar, "Terror on the High Seas"; "The Ship Security Plan"; Puchala, "Of Pirates and

Terrorists," p. 5; Transport Committee, "Piracy," pp. 20–22.

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31. Dr. Steven Harris of the Directorate of History and Heritage, Canadian Forces senior historian, coined this phrase during one of the Combined Operations Project's analytical sessions in Canberra, Australia, in July 2005.

32. Commodore James R. Stapleton, RAN, interview with Gary E. Weir, 14 December 2004, copy in author's possession. USS *Mobile Bay* (CG 53) is an Aegis guided-missile cruiser, HMS *Glasgow* (D 88) a guided-missile destroyer, and HMNZS *Te Kaha* (F 77) a frigate.

33. Ibid.

34. Ibid.

35. Ibid.

36. While a 21 July 2008 report in *USA Today* describes recently successful collaborative arrangements between the U.S. Navy and local authorities to restrict piracy and maritime crime in Asian waters, it notes the difficulty of implementing similar solutions in Africa, because of the absence of a legitimate, empowered Somali government. Citing the IMO, reporter Donna Leinwand states, "African waters account for 56% of all pirate attacks, spiking from 27 attacks in the first half of 2005 to 64 attacks since January." If order does not return to Somalia in the near future, it may be that only a regional arrangement can provide the authority to bring enforcement to the Horn of Africa.

37. "Q&A: Somali Piracy," *BBC News,* 9 January 2009, available at news.bbc.co.uk/.

38. "New Counter-piracy Task Force Established," Navy.mil.

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PIRACY AND ARMED ROBBERY IN THE MALACCA STRAIT

A Problem Solved?

Catherine Zara Raymond

T he Malacca Strait is a narrow waterway that extends nearly six hundred nautical miles from the Andaman Sea to the South China Sea, between Malaysia and Indonesia. The strait provides a vital shipping lane for vessels sailing from Europe and the Middle East to East Asia, as well as smaller vessels on local voyages. Unfortunately, when we think of the Malacca Strait, images of a waterway infested with pirates often spring to mind.

While this image could arguably have been justified in the past, it is now rather outdated. According to the International Maritime Bureau (IMB), which produces quarterly and annual reports on piracy and armed robbery against ships, there were only three successful and four attempted attacks by pirates on shipping in the Malacca Strait in 2007.[1] This low level of piracy has continued into 2008, with the Half Yearly Report issued by the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) Information Sharing Center in Singapore listing only one successful attack on a vessel in the Malacca Strait and three attempted ones.[2] Considering that around ninety thousand vessels transit the strait on an annual basis, the proportion of ships being attacked in the waterway is extremely small.

With statistics such as these, one might wonder why we are still seeing the publication of articles such

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as one appearing in a recent issue of *National Geographic Magazine,* whose cover delares, "The Strait of Malacca, Dark Passage: Pirates Haunt It. Sailors Fear It. Global Trade Depends on It."[3] There seems to be a failure, particularly outside the region, to keep pace with the change in the frequency of pirate attacks and the scale of the problem. While piracy has certainly been a concern in the waterway in the past, with reported attacks reaching seventy-five in 2000, the number of cases has been falling since 2005, largely as a result of a number of countermeasures introduced by the three littoral states of Malaysia, Singapore, and Indonesia. This decrease in attacks was achieved despite a 10 percent increase in cases worldwide.

This article will discuss the reduction in pirate attacks in the Malacca Strait and how the attacks themselves have changed over the last decade. The measures attributed to the reduction will then be discussed, as well as the underlying principles and attitudes that have shaped these initiatives. Particular attention will be given as to how the issue of sovereignty, a principle of utmost importance in Southeast Asia, has impacted multilateral and bilateral cooperative efforts to address the transnational problem of piracy, including a series of International Maritime Organization (IMO) meetings convened to tackle pressing issues affecting the safety and security of shipping in the Malacca Strait. The conclusions will make recommendations regarding issues that require further action.

THE CHANGING NATURE OF PIRACY IN THE MALACCA STRAIT

Piracy has occurred in the Malacca Strait for hundreds of years. The October 1992 creation in Kuala Lumpur of the IMB's Piracy Reporting Center (PRC), which was tasked with, among other things, collecting data on pirate attacks around the world, started to highlight the scale of the problem in Southeast Asia. However, it was not until the late 1990s that the issue came to the attention of the international community.

This occurred primarily for two reasons. First, in 1997 the Asian financial crisis had a harsh impact on the region. It is believed that the deteriorating economic situation forced many people living in coastal areas in Indonesia and Malaysia to turn to piracy to supplement their incomes. The economic collapse also caused widespread political instability, in particular in Indonesia, making it easier for people to pursue illegal methods of income generation. Second, in the late 1990s several high-profile pirate attacks took place in the region, among them the attack on the *Petro Ranger* in 1998. This may have led to an increased tendency among shippers to report attacks, particularly attempted attacks or more minor cases.

As a result of these factors, by the late 1990s the annual number of reported pirate attacks in the strait had gone from virtually zero to seventy-five.[4] Piracy

was now seen as a significant problem that required urgent attention. One year after piracy incidents peaked in the Malacca Strait, al-Qa'ida launched its attack on the Twin Towers in New York, demonstrating that ordinary means of transportation can be utilized to carry out large-scale attacks on economically important targets.

This incident prompted a reassessment of the vulnerability of the maritime sector to attack by terrorists; in Southeast Asia, the presence of pirates operating seemingly unchecked highlighted how insecure the maritime domain was. Speculation soon began as to the likelihood that the region's pirates would cooperate with regional or international terrorist groups to carry out a devastating attack on shipping.

During this period there were several different types of piracy taking place in the Malacca Strait.[5] These included robbery of vessels at sea, the hijacking of vessels, and kidnap-for-ransom attacks. Another common type of piracy takes place against vessels berthed in harbors or at anchor. However, this type of attack is unlikely to affect vessels on international voyages through the strait. The most common targets in this case would be smaller vessels that transit the coast of Indonesia or those on local voyages from, for example, Malaysia's Port Klang to the port of Belawan in Indonesia.

The robbery of a vessel by pirates usually takes place while the ship is under way, often at night, and most often between one and six o'clock in the morning. The pirates board the vessel using grappling hooks and then take any cash and valuables from the ship's safe and crew, including high-tech navigation equipment or whatever else they can seize quickly. In this type of attack the value of the stolen goods can be between ten and twenty thousand U.S. dollars.[6] The ship can be taken over for up to a few hours by from five to ten pirates, although many incidents are over within half an hour.[7] It is in this type of piracy that the most significant reduction has taken place since 2000. This may be partially due to an increased awareness on the part of crew members following the introduction of new maritime security requirements for vessels.[8]

If a vessel is hijacked, it is usually seized for a significant length of time, perhaps for several days, while the cargo is unloaded at a port selected by the pirates or transferred to another vessel. Hijacking has been less common than the former type, simple robbery, because good intelligence gathering and careful planning prior to the attack are required to ascertain the cargo and route of the vessel. A secure port to unload the stolen cargo is also needed, not to mention a willing buyer.

A variation of this latter kind of piracy is the permanent seizure of a vessel by pirates, who turn the vessel into a "phantom ship"; the key difference is that once the pirates have disposed of the vessel's cargo, they do not abandon the vessel

itself. The ship is repainted and the crew dumped or killed. The ship then sails to a new port with a false name and forged documentation.[9] In recent years tugs have been favorite targets of pirates, perhaps because they do not usually have Automatic Identification System (AIS) equipment installed and yet are very valuable ships. Also, they are easier to attack, given their low freeboards. Once taken, they may be used in various maritime criminal activities, which would favor a small vessel of kinds commonly seen in ports and international waterways.

Kidnapping is the most serious form of piracy taking place in the Malacca Strait since 2001. During a kidnap, armed attackers take over the vessel and abduct two or three senior crew members, who are then held ashore pending ransom negotiations. The kidnapped crew members are usually released unharmed following payment by their employers. Ransoms demanded can range from US$100,000 to US$200,000. However, the sum of money eventually paid to the attackers following negotiations is usually substantially lower, somewhere between ten and twenty thousand U.S. dollars.[10]

Of the three 2007 attacks deemed successful by the IMB in the Malacca Strait, one was a boarding of a containership under way northwest of Pulau Perak: crew members spotted flashlights on the deck of their vessel, and when they raised an alarm a small boat was seen moving away from the ship. Another incident took place when several unlit fishing boats approached a containership while it was under way. The ship's master took evasive action to deter the suspected pirates; two were still able to board. However, the pirates were unarmed; they were detained by the ship's crew and handed over to the authorities in Singapore. The third incident was a kidnapping; according to the IMB report documenting the attack, "ten pirates armed with firearms boarded the tug towing the barge laden with steel billets. The pirates damaged all communications equipments and stole crew personal belongings and ship's documents." The pirates kidnapped the master and the chief engineer, whom they took ashore. A ransom was demanded, and eleven days after they were kidnapped, following payment of the ransom, the two were released.[11]

The details of the three incidents from 2007 reveal that two were essentially unsuccessful. Although they were classified by the IMB as "actual attacks" rather than "attempted attacks," the pirates were able neither to steal anything nor attack anyone during the incidents. Meanwhile, in the only successful case of piracy documented in the first half of 2008 in ReCAAP's Half Yearly Report, pirates reportedly attacked two fishing trawlers in the early hours of the morning while the vessels were under way. All the crew members were thrown overboard off a nearby island in Indonesia. The crews were rescued, but the trawlers have yet to be located.[12] It is likely that the vessels and their cargoes were sold on the black market.

If the overall frequency of pirate attacks in the Malacca Strait has been significantly reduced in recent years, however, kidnapping remains a worrisome threat, especially given the great danger it poses to crew members. The continued occurrence of this form of piracy, even at low levels, necessitates a reexamination of the various countermeasures that have been implemented to improve security in the Malacca Strait. The current practice is for the employers of kidnapped crews to pay ransoms for their release. It is widely acknowledged by experts in this field that not only does paying ransom encourage further kidnappings, but the ransom money often goes to finance weaponry to be used in future attacks. A policy of no negotiation with kidnappers must be adopted to make kidnapping a nonprofitable industry.

HOW PIRACY WAS REDUCED

International pressure has been exerted on the littoral states, in particular on Indonesia and Malaysia, to address the problem of piracy.[13] This effort began in 2000, when piracy attacks peaked in the Malacca Strait, and increased even more following the events of 11 September 2001 and the subsequent conclusions drawn about the possible insecurity of the maritime domain. At this time, both Japan and the United States indicated a desire to participate in enhancing security in the waterway. However, it was not until 2004 that real steps toward securing the strait were made.

There were several stumbling blocks. Malaysia and Indonesia saw the issue of piracy purely as a domestic concern to be addressed internally by each state as it saw fit. They repeatedly emphasized their desire to uphold the sovereignty of their territorial waters, which make up most of the waterway. Singapore was more willing to cooperate, on both the regional and extraregional levels. Its stand on the issue was voiced by the then deputy prime minister Tony Tan at a 2004 conference on maritime security in Singapore, during a discussion on the issue of patrolling the strait: "It is not realistic to unilaterally confine such patrols only to countries in this part of the world. . . . [W]e can do more if we galvanize the resources of extra-regional players."[14]

The concerns of Malaysia and Indonesia were heightened when Admiral Thomas B. Fargo, then commander of the U.S. Pacific Command, outlined a proposal by the United States called the Regional Maritime Security Initiative in a speech to the U.S. Congress on 31 March 2004. In his statement he remarked that "we're looking at things like high-speed vessels, putting Special Operations Forces on high-speed vessels to conduct effective interdiction in, once again, these sea lines of communication where terrorists are known to move about."[15] In response to the suggestion by Fargo, the Malaysian prime minister, Abdullah Ahmad Badawi, remarked, "I think we can look after our own area."[16]

Another disagreement that stalled cooperation was in the level of priority that should be given to addressing the problem of piracy over other, more pressing domestic issues. This applied particularly to Indonesia, which was still recovering from the Asian financial crisis of 1997, and it manifested itself in a public denial of the reported scale of the piracy problem in Indonesian waters. Another reason why Indonesia was reluctant to address the problem of piracy may have been that only 25–30 percent of the military's expenditure was covered by the military budget following the financial crisis, with the remaining funds believed to be coming from illegal activities, such as piracy.[17]

Even today, inadequate resources and a lack of funding prevent Indonesia from fully addressing the problem; according to the navy chief of staff, Admiral Slamet Soebijanto, the country is still in need of another 262 patrol ships to make up a total of 376, the amount deemed necessary to safeguard Indonesia's seventeen thousand islands.[18] In addition, of the 114 vessels that the Indonesian navy currently has, only 25 percent are believed to be serviceable at any given time.[19]

Even in its ports, Indonesia is struggling to enforce regulations that have now become an international norm: in September 2007, the U.S. Coast Guard issued a warning to the Indonesian transport ministry stating that it had found seven port terminals that did not fully comply with the ISPS Code (a set of measures designed to enhance the security of ships and port facilities that were made mandatory under the International Convention for the Safety of Life at Sea, of which Indonesia is a signatory).

NEW MARITIME SECURITY INITIATIVES

Despite these problems, several maritime security initiatives were introduced in the Malacca Strait between 2004 and 2007. Although significant, they have arguably been constrained in their scope and capability by both the unwillingness of some of the littoral states to cooperate fully and a lack of resources. The first multilateral measure to be introduced by the three littoral states was the Trilateral Coordinated Patrol, or MALSINDO.

MALSINDO was launched in July 2004 and involved the navies of Malaysia, Indonesia, and Singapore patrolling in a coordinated fashion in their respective territorial waters. Following the introduction of this new measure, however, there was no immediate reduction in the number of pirate attacks taking place in the strait. The lack of a provision for cross-border pursuit into each of the participating states' territorial waters has been cited as the main flaw in this measure. However, cross-border pursuit would have been viewed by the participating states as an infringement of their sovereignty.[20]

Five months after the introduction of MALSINDO, an earthquake occurred off the west coast of Sumatra, Indonesia. The earthquake triggered a series of devastating tsunamis that affected most coastlines bordering the Indian Ocean. However, the areas worst hit were in Indonesia, particularly in Aceh, on the northern tip of Sumatra, an area in which many pirates were believed to be based. Some coastal villages in Aceh are thought to have lost more than 70 percent of their inhabitants, while 44 percent of the people lost their livelihoods.[21]

Reports received by the IMB in the weeks after the tsunami indicated that piracy attacks in the Malacca Strait had ceased. Even unaffected areas recorded zero attacks immediately following the disaster.[22] The significance of the impact that the tsunami seems to have had on pirate incidents in the waterway is evident in a comparison of the total attacks in 2004 with those in 2005, which show a more than 60 percent reduction, from thirty-eight to twelve.[23] However, this explanation cannot account for the continued decline in piracy from 2005 to 2007. It was predicted that "once life resumes normally in North Sumatra crime will return and with it attacks against ships."[24] Yet four years on from the disaster, when life has certainly returned to some measure of normality in the affected areas, the frequency of pirate attacks has not returned to its 2004 levels.

One explanation could be the changing political situation in Aceh. Before the tsunami, the province had been the site of a bitter twenty-six-year conflict between the Free Aceh Movement (known by its Indonesian abbreviation, GAM) and the Indonesian authorities. Around thirty-five thousand Indonesian troops and 14,700 police had been stationed in the area in an effort to suppress the GAM independence movement. However, following the tsunami both parties were brought to the negotiating table in order to discuss the disaster relief operation. This paved the way for a peace deal that was signed in August 2005.

Under the terms of the settlement, the GAM agreed to decommission its weapons and dissolve its armed wing, while the Indonesian authorities agreed to withdraw more than half of their forces from the area. As a result, around eight hundred weapons were handed in by the rebels and more than twenty-five thousand Indonesian troops left. Given that both GAM rebels and Indonesian troops had been accused of carrying out piracy, this development may well have played a part in the reduction in the number of attacks in the Malacca Strait.

The introduction in September 2005 of joint air patrols over the strait by the littoral states may have been another factor contributing to the decline in the number of incidents. The three states each donate two planes for the patrols, known as the "Eyes in the Sky" (EiS) plan. The plan permits aircraft to fly for up to three nautical miles into the twelve-nautical-mile territorial waters of the participating states; it was hoped that this measure would provide a valuable

supplement to the trilateral coordinated sea patrols, which were limited to their own territorial waters.

Politically, EiS was significant because it was the first time the littoral states had been willing to put aside concerns over the sovereignty of their territorial waters and allow foreign forces across the border. This compromise included the agreement that each patrolling aircraft would have on board a representative from each of the three littoral states. Later, in April 2006 both MALSINDO and EiS were brought together under the umbrella of the Malacca Strait Patrols.

Despite its political success, EiS has been criticized as superficial and a mere reflection of the desire of the littoral states to be seen to be doing something in the face of international pressure. It is estimated that seventy sorties per week need to be carried out by the aerial patrols in order to monitor the strait effectively, 24/7. However, currently only eight are flown. There is also a lack of patrol vessels to carry out investigation and interdiction, if necessary, following the sighting of a suspect vessel by the aerial patrols.[25] It would seem that EiS's apparent success in helping to prevent any resurgence in attacks may be a function more of its deterrent effect than of its actual, practical application.

The Regional Cooperation Agreement on Anti-Piracy

The most recent antipiracy initiative to be implemented is ReCAAP, which came into force in 2006. The agreement, which encompasses the whole region, was drafted in 2004 and required the signature and ratification of ten of the participating countries—all the members of the Association of Southeast Asian Nations, plus Japan, China, Korea, India, Bangladesh, and Sri Lanka—in order to enter into force. The aim of the initiative, which is the first antipiracy measure to be implemented on a government-to-government level, is to foster multilateral cooperation to combat the threat of piracy and armed robbery against ships. Its activity takes the forms of information sharing, capacity building, and cooperative arrangements.

A total of fourteen countries have now signed and ratified the agreement, and an Information Sharing Center, or ISC, has been set up in Singapore to facilitate communication and information exchange between member countries and to produce regular reports on pirate attacks in the region.[26] Information is exchanged between designated points of contact, or "focal points," in the member countries via a secure Web-based information-network system, on a 24/7 basis. In addition to acting as a point of information exchange, these focal points manage piracy incidents within their territorial waters, facilitate their respective countries' law enforcement investigations, and coordinate surveillance and enforcement with neighboring focal points.[27]

Nonetheless, the agreement has not yet been signed or ratified by Malaysia or Indonesia; the two countries have signaled a willingness to cooperate with the ISC, but to date no progress has been made toward securing their formal acceptances of the agreement. The lack of participation by Malaysia and Indonesia cannot help but cast doubt on its effectiveness, particularly given Indonesia's status as the most pirate-prone country in the world and both countries' strategic positions along the Malacca Strait.[28]

Although these antipiracy measures suffer from obvious and sometimes serious flaws, the continued decline in the number of pirate attacks in the waterway is testimony to their collective success, even if that success has been more in terms of improving security awareness on the part of the shippers and in deterring perpetrators. However, if piracy is to be completely eradicated in the strait—an important task, given that organized criminals are still able to carry out successful kidnappings in the waterway—countermeasures need to become more targeted. In particular, the land bases and networks of pirates need to be disrupted; without these, the pirates cannot launch effective attacks on the water.

The International Maritime Organization Meetings

During this period of increased multilateral activity among the littoral states, another process has been under way at the international level, in cooperation with the IMO. The initiative was conceived by the IMO in 2004 with the aim of promoting a comprehensive approach to security, safety, and pollution control in critical sea-lanes around the world. Known as the "Protection of Vital Sealanes" initiative, it takes as its current focus the straits of Malacca and Singapore. A series of meetings was convened under the title "Straits of Malacca and Singapore: Enhancing Safety, Security and Environmental Protection," the first of them in Jakarta in 2005. This was followed by another meeting in Kuala Lumpur in 2006 and then one a year later in Singapore.

These meetings are significant with regard to piracy in the Malacca Strait less for what they produced than for what they did not produce. At the start of this process there was speculation that these meetings would result in some sort of organized burden sharing of the maintenance of security in the waterway, with at least some involvement of the user states, in the form of financial or resource donation. This assumption seemed to be borne out when during the Jakarta meeting it was agreed that "a mechanism be established by the three littoral States to meet on a regular basis with user States, the shipping industry and other stakeholders with an interest in the safe navigation through the Straits of Malacca and Singapore (the Straits) . . . to discuss issues relating to the safety, *security* and environmental protection of the Straits."[29]

However, it was later stated, at the Singapore meeting, that "the scope of the Co-operative Mechanism focuses on safety of navigation and environmental protection in the Straits."[30] That is, the word "security" had been dropped from the discussions. Indeed, this more narrow focus on safety of navigation and environmental protection was reflected in the list of six projects, outlined by the littoral states during the Kuala Lumpur meeting, that are to be addressed under the framework of the Co-operative Mechanism:

(i)   Removal of wrecks in the Traffic Separation Scheme in the Straits;

(ii) Cooperation and capacity building on Hazardous and Noxious Substance (HNS) preparedness and response in the Straits;

(iii) Demonstration project of class B automatic identification system (AIS) transponder on small ships;

(iv) Setting up a tide, current and wind measurement system for the Straits to enhance navigation safety and marine environment protection;

(v)   Replacement and maintenance of aids to navigation in the Straits;

(vi) Replacement of aids to navigation damaged by the tsunami incident.[31]

The outcome of this process shows once again that the littoral states, in particular Indonesia and Malaysia, are unwilling to share the responsibility of maintaining security in the straits with the user states. While ad hoc contributions from user states on a bilateral basis have been accepted in the past for improving security in the waterway, there seems to be a desire at present to avoid any long-term institutionalization of the process—which, according to the Indonesian state secretary, Hatta Radjasa, would provide an opportunity for the involvement of foreign forces in securing the waterway.[32]

The outcome of the meetings also reflects the view that improving navigational safety in the straits and the protection of their marine resources is of the greatest regional concern. Although completely eradicating the piracy threat is considered a laudable goal, piracy still poses very little risk to the majority of vessels passing through the straits, while navigational safety and environmental concerns affect them all equally.

In the short term, it would seem that low levels of piracy will continue to occur in the Malacca Strait until countermeasures are developed that address the root causes of the problem and not just the symptoms. Economic development must be encouraged among the coastal areas of Indonesia and Malaysia in order to reduce unemployment, and corruption of local officials also needs to be addressed. However, antipiracy measures already in place should not be neglected;

they need to be continuously developed to keep pace with the changing nature of piracy in the waterway.

It is clear from events over the past few years that maintaining the security of the straits and dealing with the problem of piracy will remain the responsibility of the three littoral states. The role of the user states will continue to be limited to ad hoc financial or resource contributions, supplemented by diplomatic pressure. Whether or not this is to the detriment of the fight against piracy in the Malacca Strait, it is most likely to remain the status quo for many years to come.

What is needed now is greater attention to regions that are considerably more insecure than the Malacca Strait. According to one maritime security expert, "while international attention was focused on the Strait of Malacca . . . the security situation in the sea lanes linking the Philippines, Indonesia and Malaysia [was] allowed to deteriorate."[33] The areas referred to are the Sulu and Celebes seas—the first of which is located in southwest Philippines, while the Celebes Sea is bordered by the Phillipine island of Mindanao to the north, Sabah and Kalimantan to the west, and Indonesia's Sulawesi Island to the south. Largely as a result of the separatist conflict taking place in Mindanao, the areas have become "notorious for illegal maritime activities such as smuggling, piracy, and trafficking in illegal narcotics, guns and people."[34]

While the claim that the situation in these areas has been allowed to deteriorate further due to the current focus on the Malacca Strait may be to some extent unwarranted, clearly these areas have been insecure for some time and this should be addressed. Meanwhile, other parts of the world, including Bangladesh, are experiencing sharp increases in piracy. Lessons learned in the fight against piracy in the Malacca Strait should be applied to other regions to make these waters more secure. No longer should there be a false perception that the Malacca Strait is a "Dark Passage." Rather, it is time for it to be held up as an example to the rest of the world of how piracy can successfully be reduced.

NOTES

1. International Maritime Bureau [hereafter IMB], *Piracy and Armed Robbery against Ships Annual Report*, 1 January–31 December 2007 [hereafter *Annual Report,* 2007] (2008), available at www.icc-ccs.org/. The IMB's definition of the Malacca Strait does not include the coastal waters of Malaysia and Indonesia. These are classified separately under the appropriate country.

2. ReCAAP is the Regional Cooperation Agreement on Anti-Piracy; see below for further

details. ReCAAP ISC, *Half Yearly Report for 1st January 2008–30th June 2008,* available at www.recaap.org/.

3. Peter Gwin, "Dangerous Straits," *National Geographic Magazine* (October 2007).

4. IMB, *Annual Report*, 1 January–31 December 2002 [hereafter *Annual Report,* 2002] (2003), p. 5, available at www.icc-ccs.org/. Figures include both attempted and successful attacks.

5. Given that most attacks in the Malacca Strait take place within the territorial waters of the littoral states, the correct term to use for the crime is "armed robbery," not piracy. However, for the purposes of this article, "piracy" will be used to mean both armed robbery against ships and pirate attacks.

6. Anthony Davis, "Piracy in Southeast Asia Shows Signs of Increased Organization," *Jane's Intelligence Review* (June 2004), p. 2.

7. See Catherine Zara Raymond, "Piracy in the Waters of Southeast Asia," in *Maritime Security in Southeast Asia,* ed. Chong Guan Kwa and John K. Skogan (London: Routledge, 2007), p. 66.

8. In 2004 the International Ship and Port Facility Security (ISPS) Code came into force and introduced worldwide a range of new security requirements for vessels and port facilities.

9. See Raymond, "Piracy in the Waters of Southeast Asia," p. 67.

10. See ibid.

11. IMB, *Annual Report,* 2007, p. 41.

12. ReCAAP ISC, *Report for May 2008,* available at www.recaap.org.

13. Pressure was greater on Malaysia and Indonesia rather than Singapore, because piracy was thought to originate from these two countries. Malaysia and Indonesia were reluctant to acknowledge that they had problems with piracy in their waters.

14. "Singapore Seeks Joint Patrols of Malacca Straits, involving Japan," *Asian Political News,* May 2004.

15. David Rosenberg, "Dire Straits: Competing Security Priorities in the South China Sea," *ZNet,* 13 April 2005, www.zmag.org/.

16. Sudha Ramachandran, "Divisions over Terror Threat in Malacca Straits," *Asia Times,* 16 June 2004, available at www.atimes.com/.

17. Carolin Liss, "The Challenges of Piracy in Southeast Asia and the Role of Australia," Austral Policy Forum, 07-19A, *Global Collaborative,* 25 October 2007, www.globalcollab.org.

18. "Navy Needs 262 More Warships to Safeguard Indonesian Waters," *Anatara News,* 18 September 2007.

19. Liss, "Challenges of Piracy in Southeast Asia and the Role of Australia."

20. Raymond, "Piracy in the Waters of Southeast Asia," p. 73.

21. *BBC News,* available at news.bbc.co.uk/. For the American reaction, see Bruce A. Elleman, *Waves of Hope: The U.S. Navy's Response to the Tsunami in Northern Indonesia,* Newport Paper 28 (Newport, R.I.: Naval War College Press, February 2007), available at www.usnwc.edu/press/newportpapers/documents/28.pdf.

22. IMB, *Piracy and Armed Robbery against Ships Annual Report, 1 January–31 December 2003* [hereafter *Annual Report,* 2003] (2004), p. 25.

23. IMB, *Annual Report,* 2007, p. 5.

24. IMB, *Annual Report,* 2004, p. 25.

25. See Raymond, "Piracy in the Waters of Southeast Asia," pp. 73–74.

26. Reports are available at ReCAAP's website, www.recaap.org.

27. "ReCAAP Information Sharing Centre," *Intertanko,* www.intertanko.com/.

28. See Catherine Zara Raymond, "Piracy in Southeast Asia: New Trends, Issues and Responses," *Harvard Asia Quarterly* 9, no. 4 (Fall 2005), p. 17.

29. IMO/SGP 2.1/1, 16 August 2007, p. 1 [emphasis supplied]. Available at www.mpa.gov.sg/.

30. Ibid, p. 3.

31. "Fact Sheet on the IMO-Singapore Meeting and the Co-operative Mechanism," *Maritime and Port Authority of Singapore (MPA),* www.mpa.gov.sg/.

32. "RI Rejects Any Effort to Internationalize Malacca Strait," Antara News, 29 August 2007.

33. Ian Storey, "The Triborder Sea Area: Maritime Southeast Asia's Ungoverned Space," *Jamestown Foundation* 5, no. 19 (2007), p. 2.

34. Ibid.

THE POLITICAL ECONOMY OF PIRACY IN THE SOUTH CHINA SEA

David Rosenberg

Piracy is an ancient, persistent, and elusive phenomenon in the South China Sea. In the past two decades it has increased substantially, leading to a renewed interest in piracy and its possible nexus with maritime terrorism, especially after the 11 September 2001 attacks on the United States. Although it has been widely reported and investigated, piracy remains difficult to understand and to control. The oceans are "a domain increasingly beyond governmental control," says William Langewiesche. They are "vast and wild, where laws of nations mean little and where the resilient pathogens of piracy and terrorism flourish."[1] In the Asia-Pacific region, "maritime disorder prevails," observes Sam Bateman. "This includes unregulated pollution of the marine environment, over-fishing, marine environmental degradation and widespread illegal activities at sea."[2]

This article attempts to analyze piracy through the perspective of political economy, with an emphasis on state and market stakeholders and on the economic, technological, and institutional factors affecting ocean governance of piracy. The major area of concern here is the South China Sea, where approximately half of the world's reported incidents of piracy have taken place since the 1990s. Following the usage of the International Maritime Bureau (IMB), this estimate includes instances of both piracy as defined under international law—theft on the

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high seas—and armed robbery or theft in the territorial waters or ports of coastal states.[3]

This article will examine the scope and trends in piracy in the South China Sea as well as the factors that motivate this form of maritime crime. It continues with an analysis of the factors that impede antipiracy efforts, including uncertainties over definitions and legal jurisdiction, the underlying dynamics of piracy, and uncoordinated efforts at detection, pursuit, arrest, and conviction of pirates as well as recovery of crew, cargo, or ships. It concludes with an analysis of the limited progress made by state and market stakeholders to improve antipiracy security in the vital shipping lanes of the South China Sea.

MARITIME TRADE AND SHIPPING TRAFFIC

The most important factor affecting piracy and government efforts to interdict pirates is the dramatic increase in shipping traffic. Maritime trade through the South China Sea has expanded rapidly in recent years, due to three major, long-term trends: the high growth rates of regional economies and increasing trade flows among them, rising energy demand and energy imports, and the automation of cargo handling in hub ports.

Seaborne trade has doubled every decade since 1945, and shipbuilding tonnage worldwide has doubled since 1990. It is estimated that 80 percent of all world trade, or about 5.7 billion tons of cargo, is transported by sea. This maritime superhighway in the world economy is supported by a massive infrastructure, including ninety-three thousand merchant vessels with 1.25 million seamen bound for eight thousand ports.[4]

Intra-Asian trade is growing more quickly than transpacific trade. For example, in 2003 South Korea's trade with China surpassed its trade with the United States for the first time. In 2004, Japan's trade with China surpassed its trade with the United States for the first time. More and more Asian states are reorienting their trade flows toward China. The several explanations for this trend include the recovery of Asian economies from the 1997 economic crisis, the dynamic China market, and trade-opening agreements between China and Southeast Asia.[5]

Asian countries had the largest share of the total tonnage of seaborne world exports in 2006, at 38.8 percent. Exports of crude oil from western Asia and manufactured goods from China and other countries of East and Southeast Asia contributed to this result. European countries accounted for 21.8 percent of world export tonnage, with the major share coming from countries belonging to the European Union. Industrialized countries in North America and developing countries in the Americas made up 21.1 percent of world export tonnage; the latter accounted for about two-thirds of the total tonnage for the hemisphere,

owing to their considerable exports of crude oil, iron ore, coal, and grains. Africa's and Oceania's shares of overall world tonnage exported were 8.5 percent and 8.8 percent, respectively.[6]

Of the world's twenty busiest container-handling ports in the past five years, Asian ports accounted for the top six: Hong Kong, Singapore, Shanghai, Shenzhen, Busan, and Kaoshiung. The top twenty busiest global ports generally also include Port Kelang and Tanjung Pelepas in Malaysia, Tanjungpriok in Indonesia, Laem Chabang in Thailand, and Manila in the Philippines.[7] The rapid growth of maritime trade has created enormous pressures for hub ports and shipping companies to speed up shipping traffic. Port managers and shipping companies have tried to accelerate shipping traffic flows, including containerization, automation of cargo handling, and increased ship sizes.

Oil tanker traffic—already high—will increase substantially with the projected increase in Chinese oil imports. Almost all of this additional Asian oil demand, as well as Japan's oil needs, will be imported from the Middle East and Africa. Most tankers pass through the strategic Malacca Strait into the South China Sea. About sixty-five thousand vessels of all types passed through the Malacca Strait in 2005.

This rise in shipping has also created a corresponding increase in the risks of congestion and delay, collision, and crime, including in particular all forms of piracy, especially in the narrow and shallow choke points of the South China Sea. Clearly, there is a growing concern among coastal states and user states to ensure speedy and safe passage through the shipping lanes of the South China Sea. Efforts to halt piracy have been stymied, however, by differing views of what constitutes piracy and as to which countries should have jurisdiction over stopping it in highly disputed waters.

THE DETECTION, COST, AND PREVENTION OF PIRACY

Despite the problem of defining piracy and determining which stakeholder should be responsible for stopping it, several widespread generalizations about piracy set it apart from other maritime activities. These include the link between growing shipping volume and piracy, economic drivers (such as poverty), the role of organized crime, and the role that law enforcement agencies on land can play in stopping piracy.

First, the more the shipping, all things being equal, the more the opportunities for piracy. As shipping volume and velocity increase, targets of opportunity increase for pirates to seize valuable and accessible cargo from ships in port or at sea. Globalization has not only accelerated world trade. It has also seen a move to the use of flag-of-convenience shipping and a privatization of port cargo-handling services. It is increasingly difficult for port officials to distinguish legal from illegal

trade, especially among the contents of millions of containers passing through their ports. All these factors enhance the opportunities for illegal trade in pirated goods.

Second, "piracy is largely driven by poor economic conditions."[8] "The vast majority of lower-end piracy . . . is largely motivated by poverty and disenfranchisement that afflicts vulnerable targets like fishermen and local traders."[9] Sudden and severe impoverishment, especially among marginal coastal seafaring communities, makes piracy a viable way to meet basic needs. For example, the big increase in the number of piracy attacks in Indonesia's waters and ports in the past ten years may be attributed to its sharp economic downturn and domestic instability in the wake of the 1997 currency crisis. Eric Frecon has interviewed one poor migrant from a poor Indonesian kampong who puts it this way. "I became a pirate . . . to earn a living. Singapore was rich; we were poor. So, we went to pillage the areas [around] Singapore."[10]

In times of economic hardship piracy is still viable for some traditional maritime peoples. This helps to explain why most acts of piracy involve petty theft from ships in ports or anchorages. According to one study, in 2002, 77 percent of all attacks occurred in ports.[11] Economic duress also makes impoverished fishermen more vulnerable to and available for recruitment by entrepreneurial criminal organizations. Piracy will continue as long as poverty and unemployment persist.

Third, there is a small but increasing amount of piracy by organized criminal groups. This may be attributed in large part to the increasingly lucrative cargoes created by the economic dynamism of the region. There has been some increase in the kidnapping of crew members for ransom and in theft of bulk cargo. More attackers are armed, more crew members are injured, and more vessels are being hijacked. The role of organized crime in large-scale piracy is indicated by the sophisticated equipment, skilled labor, and managerial infrastructure necessary to transfer commodities on a global scale.

Fourth, all maritime piracy begins and ends on land. Whether they are poor seafarers or criminal gangsters, pirates are recruited and based on shore. Ultimately, their booty must be "fenced" on land. Whatever is taken at sea eventually arrives at a port. This requires official documentation. In the case of pirated goods, this means reliable false documentation. Officials have to be persuaded to look the other way; their corruption is essential to the routine transfer of contraband. Hence, effective antipiracy measures need more than maritime security measures; they also need close coordination with national law enforcement authorities and anticorruption agencies.

How costly is the piracy threat to shipping through the South China Sea? James Warren of the Asia Research Institute at the National University of

Singapore has claimed that piracy in the (Southeast Asia) region has cost the world economy a staggering twenty-five billion U.S. dollars a year.[12] Stanley Weeks notes that "piracy raises insurance rates, restricts free trade, increases tensions between the affected littoral states, their neighbors and the countries whose flagged ships are attacked or hijacked."[13]

Coastal states have been under considerable pressure from user states to provide safe and secure navigation through the South China Sea, especially in narrow choke points such as the Malacca Strait. The coastal states, particularly Indonesia, have been described in the media as not doing enough to suppress piracy. Also, despite the clear threat that piracy appears to offer, shipowners have not taken much action to stop it. This is perhaps explained by the high cost of preventive measures. The Organisation for Economic Co-operation and Development (OECD), for example, has stated that new security measures to counter the threat of terrorist attacks will require an initial investment by ship operators of at least US$1.3 billion and will increase annual operating costs by US$730 million.[14]

In economic terms, however, the relatively low cost of piracy may not warrant such expensive preventive measures. A closer examination of the data on piracy shows that the problem might not be as alarming as sometimes portrayed by the media, at least not in economic terms. For example, in 2005 over sixty-three thousand ships sailed through the Malacca and Singapore straits. In the same year, the IMB reported only twelve cases of actual and attempted attacks on ships in the straits. Hence, the probability of attack in 2005 was a relatively low 0.019 percent, or nineteen out of a hundred thousand. In 2003, in the heavily trafficked Malacca Strait—frequently referred to as one of the most "pirate infested" seas of the world—the risk of a transiting ship being attacked was less than 0.001 percent.

Moreover, many of these reported piracy attacks were little more than cases of petty theft against ships at anchor in port, and most piracy victims are themselves poor fishermen and traders. Considering the relatively minor costs, many shipowners may also be reluctant to report pirate attacks to the authorities or otherwise assist in the investigation of pirate attacks. Apart from reflecting badly on the company's image, reporting a pirate attack may cause the victim vessel to be detained in harbor for investigation. The cost of such delays—varying from five to twenty-five thousand U.S. dollars per day—may easily exceed the losses incurred by a pirate attack. If suspected pirates are arrested, crew members of the victim ship may be unable or unwilling to bear the expense or risk of testifying at the trial.

Many low-cost antipiracy measures are available, such as equipping the superstructure with proper locks and providing antipiracy training. However,

shipowners and insurance companies have little economic incentive to implement antipiracy measures. Contrary to the popular impression from news media reports, most shipowners have not seen piracy as a menace to international shipping. Ultimately, "repelling intruders becomes a cost-benefit analysis for ship-owners."[15] Shipowners and shipping companies don't adopt antipiracy measures because they don't find it worth the cost.

ARREST AND CONVICTION OF PIRATES

Piracy is related to other criminal activity in and around ships and ports, and it often overlaps other crimes. The arrest and conviction of pirates, smugglers, drug runners, and terrorists—both politically and economically motivated—are in many ways interconnected. In particular, the proceeds from all of these crimes eventually end up on land, which means that responsibility for stopping piracy must ultimately include law enforcement authorities on land.

The range of criminal activity around seaports is extensive, including the smuggling or illicit import of illegal drugs, contraband, stowaways and aliens, restricted or prohibited merchandise, and munitions. Metropolitan areas near major seaports often have the highest rates of motor vehicle theft. Stolen cars and computers are reported among the most lucrative illegal trade from rich countries to poor countries.[16] Smuggling may also be a precondition for piracy, by providing the essential goods and services of weapons, speedboats, port access, and illegal markets to dispose of pirated goods. Hence, piracy may represent only one aspect of criminality. Widespread poverty around the Malacca Strait also generates smugglers, procurers, prostitutes, and other criminals.

Port authorities are understandably more concerned about smuggling and illegal imports—the most common maritime crimes—than about piracy. Smuggling and illegal importation occur whenever ships unload goods illegally, in areas where they are prohibited, thereby violating states' embargo or import quotas. Hence, embargoed Iraqi oil found its way to energy importers in Asia, and black-market Marlboro cigarettes evade import duties in many porous ports. It is possible that a shipper may be unaware of an illegal cargo; that is the responsibility of the cargo owner or customs broker. Given the rapid speed and volume of trade flows, it is extremely difficult to detect and detain prohibited shipments. On the contrary, there are substantial pressures on port authorities to expedite shipments across their borders, especially in large, hub ports.

Since the 11 September 2001 attacks on the United States, links between terrorism and piracy have been extensively examined.[17] However, maritime terrorist attacks or threats—that is, politically or ideologically motivated attacks against ships—have been scarce around the South China Sea. Those few that have occurred were within the territorial waters of coastal states. For example,

Singapore foiled a terrorist plot in 2002 to hit visiting U.S. Navy vessels using a small boat rigged with explosives. The most notable maritime attack to date was carried out by the Abu Sayyaf Group (ASG) on *Superferry 14* in Manila Bay in February 2004; 116 people were killed or missing and presumed dead. However, it is not clear whether the attack was primarily motivated by ASG in pursuit of its political objectives. ASG was later found to have sent an extortion letter prior to the bombing, suggesting that it had been motivated by economic factors.

There are some notable obstacles to staging a successful terrorist attack in the South China Sea. Targets are less accessible at sea. A maritime terrorist attack would require very complex and expensive coordination of efforts. An attack, even if successful, could be much less visible than a terrorist attack on land. So far, there have been no terrorist attacks or hijacking attempts in the South China Sea, compared with dozens of terrorist attacks against churches, hotels, and other land-based targets. Overall, the probability of a maritime terrorist attack appears low. However, the total costs of a major blockage of vital sea-lanes like the Malacca Strait could be huge. Although they have been scarce, terrorist attacks on a ferry or cruise ship might have dramatic public impacts: the low probability times the high possible cost still makes maritime terrorism a substantial risk. To date, there has not been a clear relationship between piracy and terrorism.

Arresting and convicting pirates in the South China Sea is a major concern for nonregional countries with major shipping and naval interests, such as the United States, Japan, India, and Australia. They want to maintain freedom of navigation through the straits and sea-lanes of the South China Sea for oil tankers, containerships, and naval vessels. The South China Sea is the main thoroughfare between the Pacific Ocean and the Indian Ocean and is therefore of great strategic significance. The United States sends its warships, including aircraft carriers from its Pacific Fleet, through the South China Sea in support of military missions in the Arabian Sea and Persian Gulf. The South China Sea is the vital artery that connects America's prime Asian ally, Japan, with its Middle East energy suppliers.

Coastal states with extensive coastlines, such as Indonesia, Malaysia, Vietnam, and China, mainly want to protect their recently declared sovereign rights and resource control over exclusive economic zones (EEZs) up to two hundred nautical miles off their respective coastlines, as provided by the United Nations Convention on the Law of the Sea 1982 (UNCLOS). They have also taken on the political responsibility for controlling piracy along with their claims of economic control in their EEZs. For example, Indonesia will not allow any country or private security firm to guard international ships passing through the Malacca Strait on its side of the waterway. Ibnu Hadi, the Director for Asia

Pacific and Africa Inter-Regional Cooperation at the Indonesian Foreign Ministry, has said, "Indonesia will strongly object to any security guard escorting ships in its waters. Indonesia cannot accept foreign ships escorted by foreign security guards."[18]

Coastal countries also want to assert their sovereign rights to protect tourism, fisheries, and other environmental resources in their territorial waters and EEZs. However, many coastal Southeast Asian nations want to share with international shippers the burden of providing safety of navigation. Overall, this situation presents a dilemma for user states with high concerns over piracy as to whether and how to demand accountability from the coastal states with political responsibility for maritime security where international sea-lanes traverse their territorial waters. The dilemma is complicated by other pressing concerns for countries bordering the South China Sea, such as smuggling, trafficking, poaching, and pollution.

Poaching or illegal, unreported, or unregulated fishing is perhaps a more important concern for coastal states. For centuries, the South China Sea has provided abundant fisheries offering food security and employment opportunities for coastal countries. However, as coastal urban populations have grown and as fishing technology has improved, competition for shared fish stocks has intensified considerably.

There is massive illegal fishing, in the form of unregistered foreign vessels who "pirate" the seas. Foreign fishing boats intruding in rich regional fishing grounds are especially vulnerable and attractive targets for pirates. Eduardo Santos asserts that pirates in the southern Philippines prey more on marginal fishermen than on tankers, barges, containerships, or other commercial shipping vessels. They may not only seize the fish catch; they may also rob ships of their engines, equipment, cash, and other valuables.[19] In May 2004, the director of the North Sumatra Fishery Office estimated that eight thousand fishing boats, or two-thirds of the province's fishing fleet, were not operating, because of the threat of piracy.[20] The Indonesian government has estimated that the country loses four billion U.S. dollars each year due to illegal fishing alone—several times more than the estimated cost of all pirate attacks worldwide.[21]

For some South China Sea coastal states, any proposed international coordination to combat terrorism or piracy is of lower priority than other pressing issues. These include protecting and maintaining control over newly acquired ocean resources, protecting national security, or protecting bureaucratic interests. In Indonesia, all three issues may coexist. With a coastline twice as long as the circumference of the earth, and with no more than a few dozen operating vessels to patrol its territorial waters, the Indonesian navy and marine police face

a wide range of problems, including illegal fishing, illegal migration, drug trafficking, smuggling, and marine pollution.

To put this in perspective, there were only 103 incidents of piracy in Indonesian waters reported to the IMB in 2002, compared with 1,687 murders, nine thousand cases of violent theft, and eleven thousand serious assaults on land.[22] This means that piracy makes up less than 0.05 percent of Indonesia's cases of reported crime. As a direct result of these competing demands, antipiracy measures not surprisingly receive limited funding.

RECENT DEVELOPMENTS IN ANTIPIRACY MEASURES AND BURDEN SHARING

Stakeholder priorities changed substantially after July 2005, when the Joint War Committee (JWC) of the Lloyd's Market Association listed the Malacca Strait and certain areas in the southern Philippines (together with areas such as Iraq, Lebanon, and Somalia) as "prone to hull war, strikes, terrorism and related perils." As a result, marine insurance premiums were increased for vessels transiting these areas despite very strong protests by regional governments and shipowners. The JWC removed the listing in August 2006 after regional governments—with the assistance of international organizations and user states—instituted several security measures.

The JWC listing was a catalyst for several antipiracy developments. In 2003, the thirty-sixth Association of Southeast Asian Nations (ASEAN) Ministerial Meeting had issued a "Statement on Cooperation against Piracy and Other Threats to Maritime Security" but had taken little action. Subsequently, the ASEAN Regional Forum convened a meeting of maritime specialists to coordinate coast-guard action, information exchange, and investigation of piracy reports. Japan's Anti-piracy Coast Guard Program provided additional antipiracy technologies and training.

The IMB Piracy Reporting Center in Kuala Lumpur and the International Maritime Organization's (IMO's) Piracy Reporting Center in London stepped up monitoring and compliance efforts. The IMO made it mandatory for all oceangoing vessels of three hundred gross tons or more to be equipped with an Automatic Identification System (AIS) by the end of 2004. The AIS automatically sends and receives such ship information as identity, position, course, speed, and cargo information to and from other ships, aircraft, and shore installations, all integrated by satellite links. The IMB has endorsed antipiracy measures like the Secure-Ship electric fence and ShipLoc, an inexpensive satellite tracking system designed to locate ships at sea or in port by a tiny transmitter concealed on board. This would permit long-range identification and tracking of ships by anyone with authorized Internet access.

Singapore has implemented the most forceful measures to address maritime security threats. It was the first Asian port to join the U.S.-sponsored Container Security Initiative and has provided sea security teams to escort selected vessels transiting the Singapore Strait. It has restricted circulation of small craft and ferries within the port area and increased surveillance efforts by installing tracking devices on all Singapore-registered small boats to identify their locations, courses, and speeds. Together with Indonesia, it operates a radar tracking system on Batam Island to identify, track, and exchange intelligence on shipping in the Singapore Strait.

In 2003, Malaysia and Thailand started coordinated naval patrols along their joint maritime frontier. Following this, in 2004, Singapore, Malaysia, and Indonesia began coordinated naval patrols in the Malacca Strait, under the code name MALSINDO. In September 2005, the "Eyes in the Sky" initiative began, with coordinated air patrols over the strait by the three coastal states. The Philippines, meanwhile, has proposed building on its maritime border patrol exercises with Malaysia and Indonesia by formalizing a tripartite agreement to exchange information and intelligence. The increase in coordinated patrol activities has been accompanied by an increased effort to modernize regional naval and coast-guard capabilities.

Representatives of the governments of Indonesia and Malaysia have frequently asked shipping companies and the international community to share the costs of policing the Malacca Strait against pirates. Their requests, however, are received with little enthusiasm by most international actors involved—with the notable exception of Japan, which has funded a number of initiatives to provide training and resources to the law enforcement authorities in the region. Regrettably, the states that are most adversely affected by piracy—Indonesia, Myanmar, Bangladesh—can hardly afford to suppress it, whether financially, militarily, or politically. In September 2005, Indonesia and the IMO convened a meeting in Jakarta to discuss safety, security, and environmental protection in the Malacca and Singapore straits. This assembly recognized the role of burden sharing between coastal and user states, especially in the use and maintenance of international straits pursuant to article 43 of UNCLOS ("Navigational and Safety Aids and Other Improvements and the Prevention, Reduction and Control of Pollution").

Following on from this, in February 2006 the United States hosted a meeting in Alameda, California, that assembled representatives from Indonesia, Malaysia, Singapore, Australia, Germany, India, Japan, the Netherlands, Norway, the Philippines, South Korea, and the United Kingdom. (China was invited but did not attend.) While the meeting's objective was to coordinate potential user-state contributions to assist the Malacca/Singapore Strait littoral states, little progress

was made on burden sharing. On the one hand, the littoral states want burden sharing to include the cost of providing safety and environmental protection services. On the other hand, international user states view burden sharing as a means of becoming more directly involved in maritime security measures to address piracy and terrorism threats.

In September 2006, Malaysia and the IMO organized a meeting in Kuala Lumpur of coastal states, major shipping nations, and shipping companies. Working groups on safety of navigation and maritime security were established to undertake projects on such issues as the removal of shipwrecks, the establishment of a hazardous and noxious-substance response center, the installation of AIS transponders on small ships, and the placement of tide, current, and wind measurement systems.

Substantial voluntary contributions have been made by China and Japan for these projects. Some have advocated toll-road or user-pays systems to help fund pollution cleanup and navigational aids. The United States and many shippers, however, oppose strongly the introduction of any fees. They prefer to see greater transparency and accountability in any use of funds for maritime safety and security. They would also like to see Malaysia and Indonesia ratify the International Convention on Maritime Search and Rescue 1979 and the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation 1988 (known as the SUA Convention).

In addition, these countries are also considering becoming members of the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP), which was initiated by Prime Minister Junichiro Koizumi of Japan in 2001. Its Information Sharing Center was established in Singapore during September 2006. Malaysia and Indonesia indicated their willingness to participate in this effort but have not yet ratified the agreement, due to sensitivities over national sovereignty.

PERSISTENT PROBLEMS IN CONTROLLING PIRACY

Despite the recent developments in antipiracy efforts and the recent decline in piracy reports in several areas of the South China Sea, there are some persistent problems in combating piracy. Long-standing concerns include many unresolved overlapping claims and jurisdictional disputes. For example, the Spratly Islands are claimed by six countries and occupied by three of them. These territorial claims are especially important as anchors for assertions of exclusive economic zones around the disputed islands and the oil and natural gas resources they are thought to contain. With few agreed-upon boundaries in the South China Sea, countries act largely in their own self-interest. Hence, "the lack of agreed jurisdiction complicates maritime enforcement, leads to unchecked

degradation of the marine environment and facilitates illegal activities at sea, including possible maritime terrorism."[23]

Second, international user states themselves have divergent security priorities. For example, recent policy of the United States in the region has been primarily driven by its global war on terrorism. It aims to achieve "maritime domain awareness"—the development of a comprehensive picture of everything that moves on the world's oceans. American security officials want to "wire" ships so that their locations, courses, speeds, cargoes, registrations, ports of departure, and ports and times of arrival can be tracked with precision, as in an air traffic control system.[24] Japan, on the other hand, is primarily interested in antipiracy measures, reflecting its acute vulnerability to any disruption of its trade and raw materials flows.

A third reason for limited progress is that many coastal states give top priority to protecting national sovereignty and controlling their recently acquired EEZ resources. The declaration of EEZs by coastal states has led to numerous overlapping and multiplying jurisdictional claims and to legal confusion over the right to exercise innocent passage through territorial seas by warships, the right to conduct military surveillance activities in the EEZ of a coastal state, and the arrest authority of states in hot pursuit of pirates in contested waters. There is general agreement that the exercise of freedom of navigation and overflight in and above EEZs should not interfere with the rights of the coastal state. However, there is still disagreement about when overflights become intrusive eavesdropping missions to scout the defenses of potential rivals. One tragic symptom of this disagreement was the collision between a U.S. EP-3 surveillance aircraft and a Chinese fighter jet over Chinese EEZ waters near Hainan Island on 1 April 2001, after which a political crisis ensued.

Fourth, antipiracy efforts are also greatly hindered by the "flags of convenience" system of ship registration. It is extremely easy and convenient to reregister and reflag a ship. According to former IMB director Captain Jayant Abhyankar, "One simply has to fax information as to a ship's name, ownership, tonnage, and dimensions, and a registration will be granted. The information given is not checked. Once registered, it is free to be hired for trade transport."[25] It is a system of "managed anarchy," according to Stephen Flynn, former commander in the U.S. Coast Guard and a writer on maritime security.[26] According to the International Transport Workers Federation, the flags of convenience condone poor safety, pay, and training standards. A 2001 IMO survey found over thirteen thousand cases of falsified documents of seafarers, most of whom were from Indonesia and the Philippines.[27] This provides an easy opportunity for pirates or hijackers to infiltrate a ship's crew. Having hijacked a

ship, they can elude detection by reregistering it at sea for a nominal fee, thus imposing a layer of obfuscation against the search for the attackers.

Piracy carried out by organized-crime groups sometimes employs "phantom ships," operating under false identities. They may be hijacked or bought in the salvage market. They can be registered and reflagged after unloading illegal cargo. Reregistration and safety inspections are cheap, fast, and cursory in several jurisdictions. Adding to the problem is the widespread practice of most maritime shipping services to require payment in hard currency on delivery. The cash-based, fast-paced, transient nature of shipping makes it an ideal medium of exchange and money laundering for criminal entrepreneurs. At one time there were thought to be twelve phantom ships operating in Southeast Asia; all but one of them were registered in Panama or Honduras.[28]

There are some simple solutions for preventing smuggling or fraudulent sale of contraband from phantom ships. Every ship has an IMO identification number, based on its original Lloyd's registry. That number could be engraved permanently in a prominent place, so that any cargo dealer can quickly determine whether or not a suspicious vessel is in fact a phantom ship. This solution is simple, cheap, and likely to be highly effective in locating phantom vessels.

Shipowners and shipping companies are responsible for adopting antipiracy security measures, including relatively cheap physical-security measures like "safe rooms" and the installation of locks and bolts on cargo holds, in addition to satellite-based global positioning systems to track their shipments around the globe. Some shipping companies have invested in antipiracy devices like ShipLoc or Secure-Ship, or even cheaper methods, such as high-pressure water hoses or security lights. But most do not, apparently because they calculate that the risk of loss is not worth the cost of prevention.

Shippers have long-established norms of working outside national boundaries. They have to contend with import quotas, embargoes, and restrictions imposed by states for political reasons, to the commercial detriment of the shipper. Shippers may even obtain bigger profits in making prohibited goods available. In these restricted areas, it may be convenient to shipowners for their vessels to be out of radio contact or undetectable.

Another persistent problem for combating piracy is institutional insularity. A good deal of useful information about piracy is contained in the computers and files of police, coast-guard, customs, immigration, military, intelligence, and other national authorities. However, even within one national government, "information is readily available but it is locked away in 'silos' or 'stovepipes'—institutional frameworks that distribute critical information vertically but not horizontally."[29] Sharing information horizontally among governments is much

more difficult. Doing so very quickly—for example, when a suspect ship is first sighted—is even more difficult.

Hence, a number of factors impede coordinated antipiracy efforts: uncertainties over legal jurisdiction, disputed sovereignty, and uncoordinated efforts at the recovery of crews, cargoes, or ships. Even when pirates are detected, hot pursuit across national boundaries has seldom been attempted. When coordinated surveillance (like the recent MALSINDO patrols) has reduced piracy attacks, pirates have generally responded by increasing their attacks in less protected areas of the region. State and market stakeholders have made only limited progress in coordinating and sustaining antipiracy security measures for the vital shipping lanes of the South China Sea.

CONFLICTING CLAIMS, OVERLAPPING INTERESTS

Piracy is often dramatized by the news media, spreading the impression that it is more of a problem than it really is. Piracy is difficult to define and measure. It appears to be related to other forms of crime, on land and at sea. Hence, any antipiracy response must be a coordinated effort—on land and at sea. But this coordination is difficult to achieve. As a result, there is still no effective governance, or burden sharing in the provision of security, of the sea-lanes transiting the South China Sea. Coastal states don't want to give up any sovereign controls. Shippers don't want to impose restrictions or costs on their operations. Major user states have not offered sufficient support to establish the necessary measures. The current situation is far from the highly ambitious proposal by the World Bank, the United Nations Development Program, and the IMO to construct a "Marine Electronic Highway," a shipping traffic control system similar to the global air traffic control arrangement, with comprehensive, integrated electronic information, navigation, and control systems.

Whatever their conflicting claims and mutual suspicions may be, political leaders in the coastal states are beginning to understand that they must cooperate in order to manage the increase in shipping traffic, to use the resources of the South China Sea sustainably, and to address maritime security threats, including piracy. While some progress has been made, there is as yet no durable agreement on how to share the burden for providing safety and security from piracy in the region. The nation-states of Southeast Asia that have only recently extended their sovereignty and resource claims to EEZs in the South China Sea are in no rush to negotiate them away, and shippers who traverse the busiest sea-lanes in the world are reluctant to impose any stringent or expensive security measures.

All these regional and international stakeholders share many overlapping interests—for example, in promoting safe navigation for commercial shipping. On antipiracy or antiterrorist enforcement measures, however, they have had

conflicting views. Littoral states are insistent that the process of achieving regional maritime security should be locally initiated and led. They are willing to accept external assistance, but they contend that ultimately they must have the authority and capability to provide that security. For example, Tokyo's financial contributions, technical assistance, and joint training are welcomed by the littoral states. These measures not only increase the pool of available resources for maritime security but also diversify sources of assistance, avoiding sole reliance on the United States. However, regional states and shippers have yet to put aside their individual stakeholder interests and then negotiate and implement an effective regional maritime antipiracy security system. Unfortunately, it may take an event equivalent to the 11 September 2001 attacks on the United States, a spectacular collision, or a devastating oil spill to overcome contending stakeholder interests and institutional inertia and to galvanize the political will needed for effective antipiracy security measures.

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THINKING ABOUT THE UNTHINKABLE

Tokyo's Nuclear Option

Toshi Yoshihara and James R. Holmes

Will Japan go nuclear? Doubtful—but what if it does? It is possible to envision circumstances that would impel Tokyo and the Japanese populace to cast aside their long-standing dread of nuclear weapons and to construct an arsenal of their own for the sake of national survival. Menacing strategic surroundings or a collapse of the U.S.-Japan Security Treaty are two such circumstances. If some nightmare scenario did come to pass, the common wisdom has it, Japan could build a working bomb in short order. In 1991, Richard Halloran averred that "Japan is N minus six months," although he saw no evidence that Japan entertained any ambition to tap its latent weapons capability.[1] In 2007, Gary Sick, a well known commentator on Middle East affairs, reported having been privately told that Japan "could do it, sort of, over a long weekend."[2] Japan, that is, may now qualify as a "threshold state," a term "commonly understood to mean possession of the indigenous ability to acquire nuclear weapons within a relatively short time frame, ranging from a few hours to several months."[3]

Japan inhabits a tough neighborhood, while the U.S. military position in Asia looks increasingly wobbly. Nearby North Korea conducted a nuclear test in 2006 and paid no penalty for defying the "six party" framework. In January 2009, in fact, Pyongyang announced it has assumed an "all-out confrontational posture" toward rival South Korea and has "weaponized" enough plutonium for four or five implosion-type nuclear warheads.[4] Japanese thinkers have studied the rise of China closely and what it portends for Japan, positioned just off the

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Asian seaboard. Beijing has mounted an aggressive naval buildup over the past decade, gaining confidence in its capacity to subdue Taiwan militarily if need be while holding U.S. Navy aircraft-carrier task forces at bay. Taiwan adjoins Japan's southern strategic frontier, meaning that Tokyo could not look with equanimity on a cross-strait war or a return of the island to mainland rule. Indeed, Japanese imperialist expansion more than a century ago was designed precisely to secure its southern strategic flank, the back door to its Ryukyu island chain, which stretches to the coast of Taiwan.[5] Since the Sino-Japanese War of 1895, Taiwan has been in "friendly hands" for over a century. Accordingly, Japanese policy makers do not take lightly a forcible Chinese acquisition of Taiwan.

To complicate matters, as Chinese strategists look to the "day after Taiwan" they are considering how to exert influence on the sea lines of communication connecting Chinese ports with vital resources in the Middle East and Africa. China's turn toward the South China Sea and the Indian Ocean may give Beijing not only more control over its own maritime security but also more control over the maritime communications on which the resource-dependent Japanese economy relies.

Seen in realist terms, then, China's maritime rise threatens to degrade Japan's strategic position in the region. Tokyo may ultimately conclude that self-help represents the only way to shore up its position. Skyrocketing costs of developing and procuring weaponry are driving the force structure of the American military inexorably downward in numbers. Just one example: the Pentagon's estimates of future U.S. Navy fleet size now run as low as 150 ships, a fraction of the nearly six-hundred-ship navy of the 1980s.[6] Even the 313-ship fleet espoused by the Navy leadership now appears fanciful, with 283 ships currently in active service and little prospect of accelerating shipbuilding rates enough to increase the inventory by thirty vessels.[7] Allies like Japan monitor such trends closely. A precipitous decline in conventional U.S. military capacity in the theater could have major diplomatic ramifications, undercutting American staying power in the western Pacific, giving rise to Japanese fears of abandonment, and unsettling the entire Asian security architecture. More to the point, Tokyo would likely interpret such a decline as foreshadowing an end to the American nuclear guarantee.

Accordingly, an effort to discern, as through a glass darkly, Tokyo's nuclear options and their likely consequences is not only worthwhile but imperative for analysts and practitioners of Asian affairs. First, we briefly consider the motives that would induce Japan's leadership to make such a radical break with the antinuclear sentiments of the postwar era. Second, we consider the prospect of Japanese "nuclear hedging," an approach under which Tokyo would build up a capacity to develop nuclear weapons, keeping its strategic options open while remaining in formal compliance with its commitments under the Nuclear

Non-Proliferation Treaty, or NPT. Third, we consider the technical feasibility of a swift Japanese nuclear breakout, paying particular attention to assumptions that Tokyo could stage a breakout within a year of deciding to do so.[8] Fourth, we identify possible force structures and strategies available to Japan should the island nation's leadership indeed decide it is in the national interest to cross the nuclear-weapons threshold. We close by identifying areas for future research, with the aim of generating a literature of immediate use to policy makers in Washington and Tokyo.

WHY GO NUCLEAR?

Debate has swirled around prospective Japanese nuclear aspirations at least since 1958, when Prime Minister Nobusuke Kishi told the Diet that the nation's postwar "peace constitution" did not forbid a strictly defensive nuclear arsenal. Successive governments, however, disclaimed the words of the hawkish Kishi. By 1967, Prime Minister Eisaku Sato was spelling out "Three Non-Nuclear Principles," informing lawmakers that his government would not manufacture, possess, or "allow the introduction of" nuclear arms into Japan. Sato's principles earned him the 1974 Nobel Peace Prize and have remained the gold standard for Japanese nonproliferation policy ever since. However, it is noteworthy that even Sato was acutely aware of Japan's vulnerability in the dangerous Cold War security environment. Following China's nuclear breakout in October 1964, Sato quickly sought reassurances from the United States that Washington would extend its nuclear umbrella to Japan.[9] In a conversation with Secretary of Defense Robert McNamara during a state visit to the United States, Sato declared, "Should a war break out [between Japan and China], we expect the United States to immediately launch a retaliatory nuclear strike [against China]."[10] Presumably, America's extended deterrence was a critical precondition to Sato's willingness to forgo the nuclear option.

In any event, Japan's "nuclear allergy" persists to the present day. Matake Kamiya explains Tokyo's self-imposed injunction against bomb making in terms of the general pacifism codified in Japan's peace constitution, lingering memories of the atomic bombings of Hiroshima and Nagasaki, and antimilitary sentiments dating from the interwar years.[11] As a result, concludes Kamiya, opposition to nuclear weapons "is deeply embedded in postwar Japanese culture and society. . . . [I]t is still far stronger, even today, than those who warn of impending Japanese nuclear armament realize."[12] The vast majority of observers in Japan and in the West are inclined to agree with Kamiya, if for different reasons. Indeed, very few scholars have lent credence to rationales for a nuclear buildup.[13]

Tetsuya Endo, a former vice chairman of the Atomic Energy Commission of Japan, argues that while Japan possesses the technical capabilities to stage a nuclear breakout, the material costs combined with the prospects of international isolation would deter Tokyo from pursuing such an option.[14] Brad Glosserman cautions that Japan likely would not survive intact as a nation-state following a nuclear exchange—even a limited one—owing to its lack of strategic depth and the extremely high population density throughout the Japanese Archipelago.[15] Llewelyn Hughes identifies a series of domestic institutional constraints, ranging from constitutional to informal, that have anchored Tokyo securely to the U.S. nuclear guarantee.[16] Others believe that Japan is actively pursuing other strategic options, including strengthening its own conventional military capabilities and deepening its alliance ties to the United States, as substitutes for an independent nuclear deterrent.[17] In sum, normative, material, geographic, institutional, and strategic considerations militate against going nuclear.

There is no denying these constraints. Yet the logic of national security—of threat and response—is not so readily dismissed, even under the special circumstances prevailing in postwar Japan. The prevailing skepticism, moreover, has precluded serious discourse on practical and critical steps—including the development of nuclear doctrine, command and control, and force structure—that Tokyo would have to implement should it embark on a breakout. Therefore, it is useful to postulate strategic rationales and chart a road map for Japanese nuclearization.

Scott Sagan outlines three hypotheses to explain why nation-states seek nuclear weapons. First, according to Sagan's "security" model, governments "build nuclear weapons to increase national security against foreign threats, especially nuclear threats." George Shultz memorably summed up the security approach: "Proliferation begets proliferation."[18] Two policies are possible when threats arise, says Sagan. Sounding a Thucydidean note, he maintains that "strong states do what they can . . . adopting the costly, but self-sufficient, policy of developing their own nuclear weapons." Weak states, by contrast, "do what they must: they can join a balancing alliance with a nuclear power, utilizing a promise of nuclear retaliation by that ally as a means of extended deterrence."[19] Doubts about the credibility of a nuclear ally's security guarantee presumably bring pressure on even weak states—or on states that, like Japan, rely on alliances for other reasons—to seek nuclear capability. This is the logic of self-help.

Second, Sagan's "domestic politics" model "envisions nuclear weapons as political tools used to advance parochial domestic and bureaucratic interests." Three protagonists in nuclear policy making are typically the nuclear energy establishment, the armed forces, and politicians. The former two actors may have bureaucratic interests in going nuclear, as it would give them leverage in

budgetary processes, allowing them to attract resources. "When such actors form coalitions that are strong enough to control the government's decisionmaking process . . . nuclear weapons programs are likely to thrive." Conversely, when a coalition opposes nuclear weapons or the various actors find themselves at loggerheads on this question, more ambiguous results are likely.[20] A clash among domestic interests seldom yields neat, entirely rational policies.

Finally, under Sagan's "norms" model, "nuclear weapons decisions are made because weapons acquisition, or restraint in weapons development, provides an important normative symbol of a state's modernity and identity." Government decisions are driven "not by leaders' cold calculations about the national security interests or parochial bureaucratic interests, but rather by deeper norms and shared beliefs about what actions are legitimate and appropriate in international relations." A nuclear arsenal is a token of modernity, legitimacy, and great-power status. As Sagan points out, an interactive relationship exists between norms and the bureaucratic actors of his second model. As norms mature over time, they tend to be written into bureaucratic procedures and practices, influencing calculations vis-à-vis important matters like whether to seek nuclear capability.[21] Beliefs and convictions color rational cost-benefit analyses.

In the Japanese case, it appears, one of Sagan's models is in tension with the other two. Rational security calculations point to a growing threat, an ally in relative decline, and thus a weaker position for Japan in Asia. Those who incline to this way of thinking tend to see a nuclear breakout as potentially unavoidable. But foreign policy, observe Graham Allison and Philip Zelikow, represents "the extension of politics to other realms."[22] They liken foreign policy to a collage, an amalgam of bargains struck, compromises reached, and coalitions formed on a variety of issues—often under pressure.[23] Proponents of Japanese nuclearization will inevitably encounter deep-seated resistance, both from the electorate and from bureaucratic institutions in which antinuclear attitudes are entrenched.

Discord is the product of this societal indecision. Applying Allison and Zelikow's metaphor in the context of Sagan's three models, Japanese policy makers will incline strongly to some middle way between pro- and antinuclear factions. If successful, they will maximize their liberty of action, appease important parties with stakes in the outcome, reinforce American support for the security alliance, and avoid setting off a public outcry.

OPTION ONE: NUCLEAR HEDGING

If we have interpreted events correctly, Tokyo will hedge its bets on whether to go nuclear—if indeed it has not already embarked on such an approach.[24] Japan's leadership, that is, will postpone a decision for as long as possible,

monitoring its security surroundings while quietly building up the planning and strategy-making processes, expertise, infrastructure, and materiel that would make possible the fielding of a modest arsenal within a reasonable amount of time. This is not an uncommon approach for governments. Notes Ariel Levite, "Would-be proliferants rarely make formal decisions to acquire the bomb or for that matter to give it up before they absolutely have to (e.g., before they are on the verge of attaining or eliminating a nuclear capability), if then." Having a "nuclear 'option'" often makes sense in pure realpolitik terms.[25]

Evelyn Goh defines hedging in general terms as "taking action to ensure against undesirable outcomes, usually by betting on multiple alternative positions." This makes sense, says Goh, when the leadership cannot decide on "more straightforward alternatives," rating the costs of such alternatives as too high or the payoffs too low.[26] More to the point, Levite defines "'nuclear hedging' as a national strategy lying between nuclear pursuit and nuclear rollback."[27] John F. Kennedy famously predicted that fifteen to twenty nuclear-weapon states would emerge by the end of the 1960s.[28] That clearly did not happen. It nevertheless appears that hedging offers the middle way that embattled Japanese makers of policy and strategy will be looking for as they try to satisfy the interests that Scott Sagan identifies.

In this scenario, much of the hedging will take place within the domestic arena. Moving beyond mere calls for debate on the nuclear question, the Japanese policy community would begin a more serious discourse on breaking out. For example, the prime minster could openly and formally revisit and reaffirm the constitutionality of nuclear armament, perhaps by appointing a blue-ribbon commission of some type. Such a move would be as much about shaping public opinion and expectations as about developing concrete plans to be implemented.

A gradual, transparent, and deliberate analytical process thus would aim to move the nuclear issue inside the bounds of routine political discourse for the Japanese state and society. Llewelyn Hughes astutely observes that recent institutional reforms have centralized power in the prime minister's office, bolstering that body's ability to set and impose Japan's national security agenda. This and other reforms, Hughes concludes, have "ensured that the formal barriers to nuclearization are surmountable."[29] It is therefore conceivable that future efforts to strengthen executive authority further would signal the will and expected capability to overturn constraints on pursuing an independent nuclear option.

Persuasive rhetoric toward important audiences will be critical to any hedging strategy. Japanese leaders will need to navigate among the domestic interests examined by Scott Sagan, reassure the watchdog International Atomic Energy Agency (IAEA) and the international community that Japan has no desire to break its NPT commitments, and concurrently apply pressure on the United States not to draw down its conventional military commitment to Japan or,

worse still, fold up the nuclear umbrella under which Japan shelters. Indeed, added pressure on Washington to make its processes for making nuclear strategy and decisions more transparent to Tokyo would implicitly signal that Japan's nonnuclear posture is not absolute.

In other words, if the United States fails to integrate Japan more meaningfully into its nuclear plans, Tokyo might have no choice but to pursue an independent option. Alternatively, Tokyo might modify its Three Non-Nuclear Principles, lifting its self-imposed ban on the introduction of nuclear weapons onto Japanese territory. This would represent a precursor to limited deployments of U.S. nuclear weapons to strengthen deterrence.[30] The deployment of Pershing intermediate-range missiles in Europe during the 1980s offers a useful precedent. Such a move might eventually open the way for joint management of nuclear weapons positioned in the home islands, similar to existing U.S.-NATO arrangements.[31] A strategy of calculated ambiguity that at once played up Japanese capacity to go nuclear and remained noncommittal on Japanese intentions of doing so would offer Tokyo its best diplomatic option should security conditions continue to decay in East Asia.

OPTION TWO: BLACK SWANS AND NUCLEAR BREAKOUT

What would it take to empower adherents of Sagan's security model, allowing their views to win out over domestic interests opposed to nuclear weapons and over norms of decades' standing? A central feature of Japan's security strategy is the nation's utter dependence on the American nuclear umbrella. As Yukio Satoh succinctly explains, "The U.S. extended nuclear deterrence will continue to be Japan's only strategic option to neutralize potential or conceivable nuclear and other strategic threats."[32] That is, even barely perceptible signs of weakness in the U.S. nuclear posture (either perceived or real) could trigger alarm and overreactions in Japan.

Japanese concerns over the Obama administration's recent moves to advance nonproliferation and disarmament objectives attest to such sensitivities. Specifically, Japanese policy makers fret that "extended deterrence could weaken if Washington appears too eager to placate China and Russia on these [global disarmament] issues in pursuit of the nonproliferation objective or if it permits a latent North Korean nuclear capability in exchange for safeguards against proliferation."[33] In 2006, North Korea's nuclear test compelled the Japanese government to seek public reassurances from the United States that extended deterrence remained intact.[34] Not surprisingly, even skeptics on the matter of Japanese nuclearization concede that an erosion of American credibility could fundamentally reshape the Japanese strategic calculus. The Congressional Research Service forcefully contends that "perhaps the single most important

factor to date in dissuading Tokyo from developing a nuclear arsenal is the U.S. guarantee to protect Japan's security."[35] The causes and processes by which U.S. extended deterrence could be undermined in Tokyo's eyes are beyond the scope of this article. Nevertheless, we contend that a gradual or sudden collapse of the nuclear umbrella would be among the most decisive stimuli for a Japanese nuclear breakout.

Indeed, historical precedents in Cold War Asia provide ample evidence of the proliferation-related consequences of real or perceived American indifference to the region. In the past, perceptions of declining American credibility and of weaknesses in the nuclear umbrella have spurred concerted efforts by allies to break out. In 1971, under the Nixon Doctrine, which called on allies to bear heavier burdens, Washington withdrew a combat division from the Korean Peninsula. As a consequence, according to Seung-Young Kim, "Korean leaders were not sure about U.S. willingness to use nuclear weapons," despite the presence of tactical nuclear weapons on Korean soil.[36] Such fears compelled President Park Chung Hee to initiate a crash nuclear-weapons program. To compound matters, President Jimmy Carter's abortive attempt to withdraw all U.S. forces and nuclear weapons from the Korean Peninsula accelerated Park's pursuit of an independent deterrent.

Similarly, China's nuclear test in 1964 kindled "fear that Taiwan might be wiped out in a single attack, with U.S. retaliation coming too late to prevent destruction."[37] This lack of confidence in American security guarantees impelled Chiang Kai-shek to launch a nuclear-weapons program. The Sino-U.S. rapprochement of the early 1970s further stimulated anxieties among Nationalist leaders about a potential abandonment of Taiwan. In fulfilling its pledges under the Shanghai Communiqué, which began the normalization process, the United States substantially reduced its troop presence on the island. As Nancy Bernkopf Tucker argues, "The withdrawal of American forces from Taiwan compelled the Nationalists to think more seriously about alternative ways of protecting themselves," including nuclear weapons.[38] Recently declassified materials document growing American alarm at the prospect of a nuclear breakout on the island throughout the decade.[39]

In both cases, sustained American pressure, combined with reassurances, persuaded the two East Asian powers to forgo the nuclear option. The Taiwanese and South Korean experiences nonetheless show that states succumb to proliferation temptations as a result of a deteriorating security environment, heightened threat perceptions, and a lessening of confidence in the United States. While Japan certainly faces far different and less worrisome circumstances, these two case studies serve as a reminder to analysts not to casually wave away the possibility of a Japanese nuclear option.

As noted above, analysts and Japanese politicians evince conviction that Japan could erect a nuclear deterrent in a relatively short period of time. We are unpersuaded by this apparent optimism and conventional wisdom. It is true that Japan possesses all the trappings of a nuclear power. Yet the path to a credible nuclear status is likely to be long and winding. Above all, Japan needs the material capacity to develop a bomb.[40] With fifty-five nuclear-power plants in operation around the country and the nuclear sector's large reserves of reactor-grade plutonium, Japan enjoys a readily available supply of fissile material. According to *Sankei Shimbun,* Japan possesses enough plutonium on its own soil and in reprocessing plants overseas to produce 740 bombs.[41] How usable this reactor-grade material would be for weapons purposes, however, remains a matter of dispute among technical specialists. An internal government report unearthed by *Sankei Shimbun* reportedly concluded that Japan would need several hundred engineers, 200–300 billion yen (or $2–$3 billion), and three to five years to fabricate a serviceable nuclear warhead.[42]

The real question would be timing. It is doubtful in the extreme that Japan could circumvent its safeguards agreement with the IAEA undetected for long.[43] While the cases of Iran and North Korea demonstrate that it is possible to bypass the IAEA, Japan holds itself to much higher, more stringent standards, having assented to one of the most intrusive, regular inspection programs in the world.[44] Furthermore, think of the diplomatic blowback: one can only imagine the uproar if such an effort on the part of Japan, a consistent, sincere opponent of nuclear weapons, were exposed to public and international scrutiny.

Thus, Japanese policy makers must consider the extent to which Tokyo could withstand mounting external pressure to cease and desist while its nuclear complex amassed enough bomb-making material for a viable arsenal. Tokyo cannot expect to deceive the international community long enough to present the world a fait accompli. It would probably have to make its intentions clear—and endure international opprobrium—well before reaching the breakout threshold, if not at the outset.

Even assuming that Japan can procure enough fissile materials to build an arsenal, its engineers would still have to leap over several technical barriers. First, Japan must devise an effective, efficient delivery system. The most direct route would be to arm Japan's existing fleet of fighter aircraft with nuclear bombs or missiles. The fighters in the Air Self-Defense Force (SDF) inventory, however, are constrained by four factors: vulnerability to preemptive strikes while still on the ground at their bases; limited range, as Japan possesses no strategic bombers; susceptibility to interception by enemy fighters while en route to their targets; and vulnerability to increasingly sophisticated

integrated air-defense systems. Compounding these shortcomings, Japan is surrounded by water, substantially increasing flight times to targets on the Asian mainland.

In light of this, ballistic or cruise missiles would likely rank as Japan's weapon of choice.[45] The challenges would be two. First, if Tokyo chose to rely on a missile delivery system, it would have to produce a workable, miniaturized nuclear war-head that could be mounted atop an accurate cruise or ballistic missile. Such a feat is not beyond Japanese engineering prowess, but it would involve significant lead time. Second, the nation must develop the delivery vehicle itself. Even the U.S. defense-industrial sector, with its half-century of experience in this field, takes years to design and build new missiles. Japan could conceivably convert some of its civilian space-launch vehicles into ballistic missiles, but it would have to perfect key components, like inertial guidance systems. If it opted for long-range cruise missiles, Tokyo would in effect find itself—unless it could purchase Tomahawk cruise missiles off the shelf from the United States, a doubt-ful prospect, given the highly offensive nature of Tomahawks and thus the politi-cal sensitivity of such a sale—compelled to start from scratch. Procuring and integrating satellite guidance, terrain-contour matching, and other specialized techniques and hardware would demand long, hard labor from Japanese weapon scientists.

There is also the question of testing. Japan would need to ensure the safety and reliability of its nuclear arsenal. There would be no substitute for an actual nuclear test that proved this new (for Japan) technology while bolstering the credibility of Japanese deterrence. The Japanese Archipelago is simply too small and too densely populated for a test to be conducted there safely—even leaving aside the potential for a political backlash, given the memories of Hiro-shima and Nagasaki it would conjure up. Tokyo could detonate a device near some Japanese-held island in the Pacific, such as Okinotori-shima. But again, the diplomatic furor from flouting the Comprehensive Test Ban Treaty (CTBT) would be intense, while the Japanese populace would think back to the *Lucky Dragon* incident during the Bikini tests of the 1950s.[46] One need only re-call the uproar over French and Chinese tests on the eve of the CTBT's entry into force. Computer simulations of weapon performance may be less optimal but would certainly be more palatable from a political standpoint for Japan. The Israeli experience may be instructive here for any Japanese bomb-making efforts.

The technical dilemmas reviewed above demonstrate that there is no shortcut to a nuclear breakout, even for a technological powerhouse of Japan's standing. The Congressional Research Service notes, "If one assumes that Japan would want weapons with high reliability and accuracy, then more time would need to

be devoted to their development unless a weapon or information was supplied by an outside source."[47] Kan Ito, a commentator on Japanese strategic affairs for nearly two decades, concurs, considering observers who predict a rapid break-out "utterly presumptuous." Declares Ito, "It is dangerous to believe such a mis-conception. It will take 15 years for Japan to build up its own autonomous nuclear deterrence capability that is truly functional."[48] While one may quibble with his fifteen-year timeline, which seems unduly pessimistic, the period re-quired to develop and field a credible deterrent would probably be measured in years rather than the weeks or months cavalierly bandied about.

STRATEGY, DOCTRINE, AND FORCE STRUCTURE

Beyond technical and tactical decisions associated with breaking out, Japan would need to develop comprehensive policies and processes to harness its nu-clear arsenal. As noted above, strategic ambiguity over Japanese intentions and capabilities is probably impossible. As a nation that has long cherished its demo-cratic institutions and unquestioned civilian control of the military, Tokyo would need to issue formal public statements and official documents regarding Japanese nuclear doctrine. Intended for public and international consumption, such declarations would presumably predate the SDF's deployment of a deter-rent force, helping reassure Japan's neighbors, friends, and allies, especially the United States.

Japanese officials would probably frame their doctrine strictly in terms of Ja-pan's unique strategic position and local circumstances. Geostrategic realities would dictate that Japan renounce the war-fighting utility of nuclear weapons, hold fast to an unconditional no-first-use policy, and adopt an exclusively retal-iatory nuclear posture. Japan is simply too small and vulnerable to contemplate any but the most minimal deterrent options. The goal of Japanese nuclear strat-egy would be to threaten credibly limited nuclear strikes against one or several countervalue targets, deterring first use by an adversary. Such a punitive ap-proach has long underwritten the doctrines of such smaller nuclear powers as France and China.

None other than former prime minister Yasuhiro Nakasone has expressed confidence that a defensive, minimalist nuclear posture would suffice for Japan. With candor rare among Japanese politicians, he states:

> I believe it is constitutional for Japan to possess small-size nuclear weapons as long as we use them only for the purposes of defending our country. A small-size nuclear weapon has a strength that is less than one-third of the power of the atomic bomb dropped on Hiroshima. Even the U.S. Congress allows research on such small-size nuclear weapons. In order to raise Japan's defense capability in case of emergency, our Constitution should allow Japan to possess small-size nuclear weapons.[49]

While Nakasone does not stipulate the size he prefers for Japan's nuclear arsenal, he clearly believes that the destructive power of low-yield weapons would generate sufficient deterrent effects vis-à-vis would-be enemies. Keishi Saeki of Kyoto University articulates a similar logic for an independent Japanese deterrent:

> Possession of retaliatory nuclear arms consists of a means to retaliate against nuclear attacks by other nations. In other words, we must resign ourselves to accepting the initial nuclear attack. And, such conditions should alleviate to a certain degree threats against other Asian nations. Moreover, the option of retaliatory nuclear arms requires preventive preemptory strikes against imminent potential (very highly probable) nuclear attacks from other nations. Accordingly, aside from possession of nuclear arms, probably necessary will be the procurement of precision guided weapons and a missile defense system, and intelligence-gathering activities.[50]

Saeki provides a useful framework for matching means to his proposed retaliatory option. Other Japanese analysts have also offered surprisingly concrete proposals for a credible, defensively oriented deterrent. A former member of the Ground Self-Defense Force, Nisohachi Hyodo, argued as early as 1996 for an undersea deterrent, persuasively and methodically discounting the utility of land- and air-launched delivery systems, as well as of systems deployed in the surface fleet.[51] Fixed silos would be most vulnerable to preemptive strikes, he argues, while Japan is too small to make maximum use of rail- or road-mobile launchers. Aircraft could be destroyed on the airfields in a first strike, while surface combatants could be tracked and sunk with little warning by nuclear attack submarines. As such, Japan's only option is to deploy conventionally powered submarines armed with submarine-launched ballistic missiles, or SLBMs. For Hyodo, two submarines, each carrying only one missile and "roaming in separate sea zones," would be adequate to deter one target country.

In contrast, a former deputy minister under the Koizumi administration, Kenzo Yoneda, is less quick to dismiss the possibility of fitting surface warships with nuclear-tipped cruise missiles. Yoneda postulates that land-attack cruise missiles with a range of a thousand kilometers—akin to the American Tomahawk but with shorter range—deployed on board the Maritime Self-Defense Force's Aegis destroyers would constitute an important component of Japan's nuclear posture.[52] While Yoneda furnishes no specific estimates of how many missiles it would take to constitute a credible seaborne deterrent, his emphasis on cruise missiles, which carry far smaller payloads than intercontinental ballistic missiles, dovetails with Nakasone's call for "small-size nuclear weapons." The relatively short ranges Yoneda envisions, moreover, imply a modest regional deterrent force for Japan.

Kan Ito argues that Japan must possess two or three hundred nuclear-armed cruise missiles deployed on "small destroyers and submarines" to establish minimum deterrence.[53] Ito presumably supports using existing platforms like Aegis destroyers and the latest diesel submarines as launch platforms. He also makes a compelling case against ballistic missiles, contending that they are far more destabilizing than cruise missiles because of sharp differences in speed and destructive potential. Relatively slow, single-warhead, low-yield cruise missiles would signal Japan's determination to blunt opponents' preemptive strategies while remaining in an unmistakably retaliatory posture. This approach, Ito concludes, would be more conducive than a ballistic-missile force to a stable Asian military balance.[54] Clearly, then, even hard-liners and proponents of nuclearization embrace a defensive-minded nuclear doctrine.

The aforementioned options are not mutually exclusive. Japan could very well adopt a mix of delivery systems, or the SDF could phase in more sophisticated weaponry and platforms as they become available. It is therefore worth exploring the risks, rewards, and technical feasibility of some of the proposals reviewed above. First, Japan would be hard pressed to choose SLBMs as the backbone of its deterrent. The Maritime SDF's existing conventional submarines are too small to carry such missiles. While a fleet ballistic-missile submarine, or SSBN, would represent the ideal platform for a guaranteed second-strike capability, the technological hurdles would severely challenge even Japan's top-notch scientific and engineering community. To name just one such hurdle, the SDF possesses no naval reactors. Developing and building the propulsion plant for an SSBN would be enormous undertakings in themselves. The financial cost of building, maintaining, and deploying multiple SSBNs—the Maritime SDF would need two to three boats to keep one on patrol at any given time—would tax a defense budget already under strain. Tetsuo Sawada of the Tokyo Institute of Technology estimates that a single SSBN armed with ballistic missiles would cost Japan a breathtaking five billion dollars, while a credible deterrent force involving several submarines would reach an astronomical ten trillion yen, or in excess of $100 billion.[55]

We therefore judge an undersea ballistic-missile deterrent improbable for Japan unless the security outlook is truly dire, justifying an effort of such magnitude and duration. Cruise missiles, in comparison, are cheap and easy to develop. Indeed, much of the technology is readily available off the shelf in the marketplace. Since Japan would aim retaliatory strikes at large cities, its cruise missiles would not need to be particularly accurate. Major Asian metropolises like Pyongyang, Beijing, and Shanghai are near the coast, making penetrating enemy airspace relatively easy. The target set would fall well within the range of missiles like those espoused by Kenzo Yoneda. In theory, only one bird would need to get through for

Japan's minimum deterrent to be credible. Ito's call for two to three hundred missiles thus may be somewhat excessive, even assuming high attrition rates due to malfunction or enemy interception.

In all probability, Japanese cruise missiles, which are far smaller than medium-range ballistic missiles, would be fired from conventional submarines—presumably from torpedo tubes, given how difficult it would be to retrofit these boats with vertical launchers—to maximize the survivability of the deterrent force. We forecast that Tokyo would need time to perfect techniques and procedures for launching cruise missiles from submerged conventional submarines. In the meantime, once the missiles became available in sufficient quantities, they could be deployed in vertical-launch canisters on board Aegis destroyers as a stopgap measure. Two or three destroyers could cruise simultaneously in disparate locations in the Pacific, enhancing redundancy and survivability. Cruise missiles could also be fired from fighter aircraft at long distances. For instance, missiles launched from an F-2 based in Okinawa would be able to reach most of China's major coastal economic centers. Such redundancy at sea and in the air might meet Japan's strategic requirements temporarily until the undersea option was fully functional.

We acknowledge the drawbacks to deploying cruise missiles aboard conventional submarines. They are slow by comparison to their nuclear-powered brethren, their range is limited by fuel capacity, and they can remain on patrol for only a short period. SDF conventional submarines thus would likely find themselves confined to patrol grounds near Japanese coasts, rendering them vulnerable to detection. Even so, air-independent propulsion will offset the detection problem once installed in Japanese boats, allowing them to remain underwater for longer stretches. The availability, number, and modest cost of these proven vessels far outweigh their technical shortfalls.

Keeping two boats on station at all times would likely meet Japan's deterrent needs. SDF boats would presumably operate from the existing submarine bases at Kure and Yokosuka. This would allow easy access to patrol grounds in the Sea of Japan and along the Asian seaboard south of the Japanese home islands. Kure in particular makes for an ideal base, offering a central location in the Inland Sea, ready egress into both the Pacific and the Sea of Japan, and easily defensible approaches. Coastal metropolises would be within reach of Japanese boats on station, especially once technical improvements increased SDF cruise missiles' range to rival that of the TLAM-N. The Maritime SDF could diversify its portfolio, as it were, operating in different zones to threaten different targets and complicate adversaries' antisubmarine warfare (ASW) problems. Tokyo could surge additional submarines at any given time, moreover, straining the ASW capabilities of prospective adversaries. Up to eight boats could conceivably be sent to sea, according to the back-of-the-envelope calculations provided below. In light

of the Chinese navy's inattention to ASW, this "limited" nuclear capability represents a potent one indeed.

Finally, there is the matter of budgeting and force sizing. With over forty destroyers and nearly twenty submarines, Japan doubtless already boasts one of the largest and most advanced navies in the world. Nevertheless, undersea deterrent patrols would likely demand substantial, though not prohibitive, increases in the size of the submarine fleet. We assume that the Maritime SDF would deploy a separate submarine group dedicated exclusively to nuclear strike, while maintaining adequate numbers for traditional operations, such as sea-lane security and sea denial. Such a decision would remove the nuclear-armed boats from potentially risky frontline duties along the Asian littoral environment, permitting crew members to accumulate hard-earned experience and sharpen the specialized skills needed for deterrent patrols in the Pacific.

How would Tokyo finance a new arm of its submarine force? In order to maintain its qualitative edge in undersea warfare, the Maritime SDF has traditionally decommissioned submarines unusually early, introducing more advanced boats to replace older ones. To support the nuclear mission, accordingly, the maritime service could easily extend the service life of its fleet by at least ten years, allowing for the conversion of existing boats and the introduction of new submarines without undermining Japan's overall undersea prowess. The U.S. Navy's conversion of four *Ohio*-class SSBNs to serve as cruise-missile platforms, or SSGNs, offers a precedent for this sort of effort.

What about numbers? We believe a deterrent force of twelve cruise-missile submarines would let the SDF keep two boats on patrol at all times. How do we arrive at this figure? While Japanese mariners understandably divulge few details about the technical specifications of SDF submarines, we estimate—very conservatively—that their fuel capacity would permit Japanese diesel boats to remain on patrol for one month. (As a crude measuring stick, the endurance for the ubiquitous, German-built Type 209 is advertised at fifty days at the outside.)[56] If so, approximately six boats would be necessary for the SDF to keep one on station. Consider:

- One boat would be deployed at any given time, with three others undergoing routine upkeep, crew training, and local operations between deterrent cruises. This would permit a four-boat rotation, with each vessel making three patrols annually. This is a leisurely operating tempo by U.S. Navy standards and thus sustainable indefinitely for the SDF.

- Using the U.S. Navy rule of thumb that it takes three units to keep one in full readiness for deployment, we further assume that an additional two boats would be in extended overhaul at any time, subtracted from the

rotation. This leaves us with our six-to-one ratio between boats in the Mar-
itime SDF inventory and those actually at sea. Again, this may overstate
matters, as the American thumb rule assumes six-month deployments,
with all the wear and tear that extended cruises impose. Japanese units face
fewer demands, and so the SDF could well get by with less.

Multiplying by two—again, with one squadron presumably based at Kure and
another at Yokusuka—yields a total of twelve boats. Should Japan's strategic po-
sition continue to deteriorate, Japanese strategists may conclude a bigger mar-
gin of deterrence—and thus a bigger undersea fleet—is necessary to national
defense.[57] If so, additional six-boat increments could lie in store. But the more
modest fleet sketched here, we believe, would provide more than ample retalia-
tory capacity for "minimal deterrence with Japanese characteristics."

Such a fleet would be affordable despite the real and nettlesome budgetary
constraints Tokyo confronts. Modest increases in the defense budget as a per-
centage of gross domestic product (GDP) would generate sufficient resources
(in absolute terms) to pay for such a buildup. If the Japanese government came
to see the security environment as menacing enough to warrant a nuclear break-
out, it would likely reprogram funds to support a naval buildup to support nu-
clear deterrence. Tokyo has long fixed its defense expenditures at about 1 percent
of GDP, amounting to over forty billion dollars a year. The Japanese government
would certainly have to shatter this self-imposed, somewhat arbitrary ceiling. If
Tokyo were to increase the defense budget by 20 percent—that is, to 1.2 percent
of GDP—the additional eight billion dollars per annum could furnish the finan-
cial foundation for a major modernization and expansion of the submarine
fleet. The average cost of a single conventional submarine on the world market
(anywhere between $200 and $400 million per boat) suggests that Japan pos-
sesses the financial clout to meet these new force-structure requirements.

UNTHINKABLE BUT VALUABLE ANALYSIS

In closing, it is worth reemphasizing that this study eschews any assessment of
the likelihood of Japan's going nuclear. Ample work already exists on the pros
and cons of nuclearization. As noted in the introduction to this essay, we concur
in general that it is highly unlikely that Tokyo will pursue an independent nu-
clear arsenal for the foreseeable future. The U.S.-Japanese alliance is arguably in
the best shape ever, while mainstream Japanese policy makers remain confident
in the credibility of American extended deterrence. However, we believe that this
largely valid consensus on the improbability of a nuclear breakout has precluded
constructive discourse on practical American policy alternatives should Tokyo
undertake a radical change of course. While it may be distasteful to contemplate

such a scenario, we are convinced that there is genuine analytical utility in thinking about the unthinkable. Chief among our findings through this mental exercise is that Japan will not "break out" in the literal sense of the term. Rather, it will proliferate in slow motion, if it makes a decision to go nuclear.

This study by no means constitutes an exhaustive exploration of Japan's nuclear options and their possible consequences. Four main areas of research would be worth pursuing further. First, a comparative analysis of historical models—particularly the British and French experiences during the Cold War—might offer fruitful insights and potential models for Japan to emulate. Findings regarding the extent to which these smaller nuclear arsenals complemented or fit within the broader U.S. nuclear strategy would be particularly useful for Japanese policy makers.

A second and closely related point is that this study has focused exclusively on a potential Japanese nuclearization process. It would be useful to make an effort to foresee the plausible range of impacts such a momentous decision could have on the U.S.-Japanese alliance on the "day after" a breakout. We incline to doubt that the security partnership would collapse overnight, especially if Tokyo initiated open, constructive consultations ahead of time. Even so, the transpacific alliance would never be the same. Would Washington withdraw its nuclear umbrella in a fit of pique? Or would Tokyo and Washington transcend the initial discord, integrating their nuclear strategies and developing a transpacific deterrent, much as the U.S.-British alliance formulated a transatlantic deterrent to Soviet aggression?

Third, a Japanese nuclear breakout would certainly release shock waves across Asian capitals. How would Japan's retaliatory posture and forces interact with the Chinese nuclear doctrine and North Korea's nuclear program? Would Tokyo's entry into the nuclear club spur both horizontal and vertical proliferation?

Fourth, but certainly not least, there are technical questions to resolve. As noted before, the timing of any Japanese effort to breach the nuclear threshold would depend on large part on the availability of weapons-usable fissile material. How easily could Japanese nuclear engineers put the nation's stockpile of reactor-grade plutonium to use for manufacturing nuclear warheads? It seems reasonable to suppose that Tokyo could convert this material for use in nuclear payloads over time; the main question is when.

These are questions eminently worth pondering. We make no pretense of offering the last word on the subject of Japanese nuclear options. We hope it is a useful first word in a sorely needed discussion of naval strategy and deterrence in Asia.

NOTES

The views voiced here are not necessarily those of the Naval War College, the U.S. Navy, or the Department of Defense.

1. Richard Halloran, *Chrysanthemum and Sword Revisited: Is Japanese Militarism Resurgent?* (Honolulu: East-West Center, 1991).

2. *Global Security Newswire,* 7 December 2007, available at www.nti.org/d_newswire/.

3. Ariel E. Levite, "Never Say Never Again: Nuclear Reversal Revisited," *International Security* 27, no. 3 (Winter 2002/03), p. 66 note 17.

4. Choe Sang-Hun, "North Korea Says It Has 'Weaponized' Plutonium," *New York Times,* 17 January 2009.

5. It is noteworthy that the Japanese launched major air strikes against the Philippines from Kao-hsiung in its initial moves to conquer Southeast Asia.

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7. U.S. Office of the Chief of Naval Operations, *Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for FY 2009* (Washington, D.C.: Director, Warfare Integration, February 2008), pp. 3–12; "U.S. Navy Active Ship Force Levels, 2007 to 2008," *Naval Vessel Register,* Naval Historical Center, www.history.navy.mil/branches/org9-4.htm.

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9. For a sense of Tokyo's surprise and alarm at Beijing's nuclear breakout, see "China's Rapid Rise as Nuke Power Surprised Japan, U.S.," Kyodo World Service, 25 February 2005.

10. "Sato's Nuclear Request," Asahi Shimbun, 24 December 2008.

11. Matake Kamiya, "Nuclear Japan: Oxymoron or Coming Soon?" *Washington Quarterly* 26, no. 1 (Winter 2003), pp. 65–67.

12. Ibid.

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14. Tetsuya Endo, *How Realistic Is a Nuclear-Armed Japan?* AJISS-Commentary 8 (Tokyo: Association of Japanese Institutes of Strategic Studies, 20 July 2007).

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16. Llewelyn Hughes, "Why Japan Will Not Go Nuclear (Yet): International and Domestic Constraints on the Nuclearization of Japan," *International Security* 31, no. 4 (Spring 2007), pp. 67–96.

17. Hajime Izumi and Katsuhisa Furukawa, "Not Going Nuclear: Japan's Response to North Korea's Nuclear Test," *Arms Control Today* 37, no. 6 (July/August 2007), pp. 51–56; Mike M. Mochizuki, "Japan Tests the Nuclear Taboo," *Nonproliferation Review* 14, no. 2 (July 2007), pp. 303–28.

18. George Shultz, "Preventing the Proliferation of Nuclear Weapons," *Department of State Bulletin* 84, no. 2093 (December 1984), pp. 17–21.

19. Scott D. Sagan, "Why Do States Build Nuclear Weapons? Three Models in Search of a Bomb," *International Security* 21, no. 3 (Winter 1996/97), pp. 55, 57.

20. Ibid., pp. 55, 63–64.

21. Ibid., pp. 55, 73–76.

22. Graham Allison and Philip Zelikow, *Essence of Decision: Explaining the Cuban Missile Crisis,* 2nd ed. (New York: Longman, 1999), p. 256.

23. Ibid., p. 257.

24. Levite, "Never Say Never Again," pp. 71–73. See also Yuri Kase, "The Costs and Benefits of Japan's Nuclearization: An Insight into the *1968/70 Internal Report,*" *Nonproliferation Review* 8, no. 2 (Summer 2001), pp. 55–68.

25. Levite, "Never Say Never Again," p. 67.

26. Evelyn Goh, *Meeting the China Challenge: The U.S. in Southeast Asian Regional Security Strategies* (Washington, D.C.: East-West Center, 2005), pp. 2–4. See also Evelyn Goh, "A Strategic Insurance Policy," *Asia Times,* 6 September 2006, available at www.atimes .com/; and Evan S. Medeiros, "Strategic Hedging and the Future of Asia-Pacific Stability," *Washington Quarterly* 29, no. 1 (Winter 2005–06), pp. 145–67.

27. Levite, "Never Say Never Again," p. 59.

28. Joseph Cirincione, Jon B. Wolfsthal, and Miriam Rajkumar, *Deadly Arsenals,* 2nd ed., rev. (Washington, D.C.: Carnegie Endowment for International Peace, 2005), p. 18.

29. Hughes, "Why Japan Will Not Go Nuclear (Yet)," p. 91.

30. Hisahiko Okazaki, "Time to Consider a Nuclear Strategy for Japan," *Daily Yomiuri,* 7 April 2007.

31. Terumasa Nakanishi, a professor at Kyoto University, argues explicitly that "U.S. nuclear weapons will be deployed in Japan as arms exclusively for the defense of Japan, and Tokyo and Washington will share the buttons to fire them. Japan and the United States should have a joint system to operate nuclear weapons." See "North Korea's Nuclear Threat/Should Revision of the 3 Nonnuclear Principles Be Discussed?" *Daily Yomiuri,* 22 March 2007.

32. Yukio Satoh, *Reinforcing American Extended Deterrence for Japan: An Essential Step for Nuclear Disarmament,* AJISS-Commentary 57 (Tokyo: Association of Japanese Institutes of Strategic Studies, February 2009).

33. James L. Schoff, *Does the Nonproliferation Tail Wag the Deterrence Dog?* PacNet 9 (Washington, D.C.: Center for Strategic and International Studies, 5 February 2009).

34. See Joint Statement of the U.S.-Japan Security Consultative Committee, *Alliance Transformation: Advancing United States–Japan Security and Defense Cooperation,* 1 May 2007, available

at www.mofa.go.jp/. The report declared that "the full range of US military capabilities—both nuclear and non-nuclear strike forces and defensive capabilities—form[s] the core of extended deterrence and support[s] US commitments to the defense of Japan."

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36. Seung-Young Kim, "Security, Nationalism and the Pursuit of Nuclear Weapons and Missiles: The South Korean Case, 1970–82," *Diplomacy and Statecraft* 12, no. 4 (December 2001), p. 56.

37. David Albright and Corey Gay, "Taiwan: Nuclear Nightmare Averted," *Bulletin of Atomic Scientists* 54, no. 1 (January/February 1998), p. 55.

38. Nancy Bernkopf Tucker, *Taiwan, Hong Kong, and the United States, 1945–1992: Uncertain Friendships* (New York: Twayne, 1994), p. 146.

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41. "Japan's Nuclear Capability: Model of Peaceful Use; Owns Plutonium Enough for 740 Atomic Bombs," *Sankei Shimbun,* 8 November 2006.

42. "Japan Needs 3–5 Years to Build Nuclear Warheads," Kyodo World Service, 25 December 2006; "Unaware of Reported Government Documents on Nuke Warhead: Shiozaki," *Jiji Press,* 25 December 2006.

43. "Japan Profile," *Nuclear Threat Initiative,* October 2008, www.nti.org/.

44. Shinichi Ogawa and Michael Schiffer, "Japan's Plutonium Reprocessing Dilemma," *Arms Control Today* 35, no. 8 (October 2005), pp. 20–24.

45. If the threat environment deteriorates so precipitously as to warrant an immediate breakout, it is possible to imagine the SDF relying on air delivery as an interim measure.

46. On 1 March 1954 the Japanese tuna boat *Daigo Fukuryu Maru (Lucky Dragon 5)* was exposed to radiation from the U.S. CASTLE BRAVO test on Bikini Atoll. A crewman died of the effects the following September.

47. Chanlett-Avery and Nikitin, *Japan's Nuclear Future,* p. 6.

48. Kan Ito, "China's Nuclear Power Will Control the World by 2020," *Shokun,* 1 January 2006, pp. 34–45.

49. Yasuhiro Nakasone, "Japan's National Defense Strategy for the 21st Century," *Voice,* 1 April 2004, pp. 50–57.

50. Keishi Saeki, "Qualifications and Limitations of Nuclear Arms in Japan," *Chuo Koron,* 1 September 2003, pp. 36–39.

51. Nisohachi Hyodo, "A Plan to Deploy Nuclear Warheads in Japan," *Shokun,* 2 October 1996.

52. The TLAM-N, the nuclear variant of the Tomahawk, boasted a range of 2,500 kilometers until withdrawn from service in 1991.

53. Kan Ito, "Are We Prepared to Deal with Kim-Chong-Il's Evil Bombs?" *Shokun,* 1 April 2003, pp. 86–94.

54. Ito, "China's Nuclear Power Will Control the World by 2020."

55. "North Korea's Nuclear Threat / Japan Could Build N-Weapons, But . . .," *Yomiuri Daily,* 21 March 2007.

56. "Type 209," GlobalSecurity.org, www.globalsecurity.org/.

57. Professor William Murray, a retired submariner, estimates that Japan would need some twenty-four missile-armed boats to provide an adequate margin of deterrence. Using our six-to-one ratio, that would allow the SDF to keep four submarines on deterrent patrol at any time. Phone discussion between James Holmes and William Murray, Newport, Rhode Island, 23 February 2009.

CHINA IN AFRICA

An AFRICOM Response

Commander Todd A. Hofstedt, U.S. Navy

T he recent expansion of Chinese activity in Africa has raised several concerns, ranging from control over energy resources to exploitive economic practices and support of rogue or corrupt regimes, perpetuating instability and undermining international pressure for reform. These issues, however, represent only a fraction of China's broadly based engagement in Africa. In fact, the most egregious examples of China's behavior commonly cited are unsustainable and even counterproductive to its long-term interests in Africa. China's involvement is thus evolving, as government and ever more influential business interests in that nation recognize the advantages of political and economic stability in Africa. These interests support U.S. security objectives in Africa, encouraging more effective governance and mitigating grievances against the status quo. Consequently, in the furtherance of its mission "to promote a stable and secure African environment," the newly established U.S. Africa Command (AFRICOM) would do well to support the productive, responsible activities of Chinese actors in Africa.[1]

In its inaugural white paper on Africa, *China's African Policy,* issued in January 2006, China identified its "general principles and objectives" as "Sincerity, friendship and equality"; "Mutual benefit, reciprocity and common prosperity"; "Mutual support and close coordination"; "Learning from each other and seeking common development"; and "The one-China principle . . . [as] the political foundation for the

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establishment and development of China's relations with African countries."[2] The somewhat nebulous nature of these "objectives" (with the exception of the One-China principle) and the fact that they were intended for an international audience necessitate the examination of China's actual activities with respect to Africa in order to assess the practical meaning of these objectives and the degree to which they have been achieved.

CHINA'S ACTIVITIES IN AFRICA

Chinese involvement in Africa is broad both geographically and in nature. Of the fifty-three countries in Africa, China maintains official diplomatic relations with all but Burkina Faso, São Tomé and Príncipe, Gambia, and Swaziland, which maintain official relations with Taiwan.[3] Those four states excepted, China has an embassy and ambassador in each of the African nations but Somalia (due to security issues), and all except Comoros maintain embassies in Beijing.[4] Moreover, official contacts include frequent high-level visits by President Hu Jintao, Premier Wen Jiabao, and numerous ministers, particularly the foreign minister, whose first foreign visit each year since 1991 has been to Africa.[5] In a November 2006 summit of the Forum on China-Africa Cooperation (FOCAC), China hosted political leaders from forty-eight African states, including forty-one heads of state or government.[6] (Founded in 2000, the FOCAC meets annually, with summit-level talks every three years.)[7] China is also actively engaged with the African Union (AU), pledging $100–$150 million for the construction of a permanent headquarters and attending AU summits in 2006 and 2007.[8] The chairperson of the Commission of the African Union, Jean Ping, commended China in January 2009 for its contributions to Africa and identified China as Africa's key strategic partner.[9] In February 2009, China dramatically broadened its diplomatic support for Africa at a plenary session of the UN General Assembly, during which the Chinese ambassador declared: "In the reform of the Security Council, priority should be given to the greater representation of developing countries, in particular African ones."[10]

Perhaps the most visible manifestation of Chinese activity in Africa is economic. China has provided considerable development aid, in the form of low-interest loans, including thirteen billion dollars to Angola, nine billion to the Democratic Republic of the Congo, and $2.5 billion to Ethiopia.[11] This is on top of 10.5 billion yuan ($1.3 billion) in debt relief provided to twenty-seven African countries between 2000 and 2003 and an additional ten billion yuan in debt cancellation for thirty-three African countries announced in 2006.[12] China also contributes to the African Development Bank, hosting the bank's annual meeting in May 2007, in Shanghai.[13] Additionally, China is a member of the West African Development Bank, has signed agreements with the East African Development Bank and with the Eastern and Southern African Trade and

Development Bank, and is engaging the Economic Community of West African States, the Common Market for Eastern and Southern Africa, and the South African Development Community.[14]

China-Africa trade in recent years has grown dramatically, from forty billion dollars in 2005 and $55.5 billion in 2006 to seventy billion in 2007 (when China, overtaking Britain and France, became Africa's second-largest trading partner) and an anticipated excess of $100 billion in 2010, at which point it would surpass the United States to become Africa's single largest trading partner.[15] In fact, this target was achieved two years early, with trade in 2008 reaching $106.8 billion, despite trade actually declining in December as the global financial crisis intensified.[16] This is particularly noteworthy given that the rate of Africa's export growth to China (exceeding an average of 40 percent annually) and import growth from China (exceeding an average of 35 percent annually) are both considerably higher than the rate of growth in either world trade (14 percent) or commodity prices (18 percent).[17] China's balance of trade with Africa has shifted from a surplus of $940 million in 2007 to a deficit of $5.16 billion in 2008.[18] China has expanded the list of duty-free imports from Africa from 190 to 440 items and is discussing a free-trade agreement with the Southern Africa Customs Union.[19] Trade relations are further fostered by "commercial counselor offices in 40 African countries and seven consulates-general in five of them."[20] Despite the common perception of Chinese exploitation of African natural resources, Chinese trade is actually no more exploitive than that with the West: "The similar composition of goods traded between Africa and its main trading partners suggests that the recent surge in Africa-China trade largely reflects the comparative advantages of each partner, given their stage of economic development, rather than any unilateral interest by China in exploiting natural resources."[21]

While still relatively small, Chinese direct investment in Africa is growing and diversifying. Though published values vary considerably, as late as 2007 China had invested, by one measure, thirteen billion dollars in Africa, primarily in extractive industries, about six billion of that in the oil sector of Sudan alone.[22] In October of that year, however, the Industrial and Commercial Bank of China purchased a $5.6 billion stake (representing 20 percent) in the Standard Bank Group of South Africa, Africa's largest bank.[23] By 2005 China had established over eight hundred enterprises in Africa, and in 2006 it announced plans for a five-billion-dollar China-Africa Development Fund to promote African investment by Chinese firms.[24] Additionally, "special economic zones" have been created to provide Chinese firms preferential "incentives, tax breaks, and reliable power services to mitigate investment risk" and to "link disparate and fragmented African producers and markets in China."[25]

Though frequently criticized in the West, Chinese economic aid is very popular in Africa, since its unconditionality (the sole prerequisite being acceptance of the One-China principle) respects sovereignty, in regional eyes, and avoids the protracted negotiation process that, in contrast, can significantly delay the receipt of aid from the West.[26] Africa thus sees China as a valuable alternative to the West, whose aid it also perceives as frequently paternalistic and as tending to impose Western values.[27] Moreover, Nigerian officials, for example, despite "certain reservations about Chinese intentions," have noted that "collaboration with the West . . . had left Africa impoverished despite half a century of aid."[28] China also funds high-profile projects that provide tangible benefits, including projects eschewed by Western donors for their difficulty.[29]

In particular, Chinese, like African, leaders generally favor infrastructure projects, while Western donors prefer to avoid them.[30] Chinese firms complete them less expensively than their Western counterparts and have a reputation for rapid completion and acceptable (if not Western-level) quality.[31] Chinese firms have also proved more tolerant of financial and security risk, going into areas of conflict and instability generally avoided by Western companies, thereby facilitating a greater range of operations.[32] Technology transfer from these projects is generally more readily exploitable for African users as well, since their technological gap with respect to China is much smaller than that with the West.[33] Finally, a number of Chinese companies are electing to remain in Africa after the initial projects that brought them there have been completed, indicating their perception of ongoing economic opportunity and making them readily available for follow-on projects.[34]

The current global economic crisis and its concomitant decline in commodity prices have raised questions about the future direction of Chinese economic involvement in Africa. Some observers believe an economic retrenchment—if not retreat—is under way, citing the fact that in the last two months of 2008, over sixty Chinese mining firms departed the Democratic Republic of the Congo (DRC) and more than a hundred left Zambia.[35] They also point to the inactivity associated with the 2007 offer of several billion dollars in loans to the DRC, the repayment of which was to be partially based on copper-mining concessions.[36] Resource-based loans to Guinea and Gabon are experiencing similar delays.[37]

A broader view, however, discredits this conclusion. First of all, the possible waning of Chinese interest is not the only factor impeding the DRC loan package; Western donors have threatened to withhold relief from the DRC's eleven-billion-dollar foreign debt if the DRC does not renegotiate the terms of the Chinese financing.[38] In the case of Guinea, the December 2008 coup and its

associated political instability undoubtedly created concerns about both the physical security of Chinese investment and, more fundamentally, whether agreements with the current sitting government will have lasting economic and diplomatic value.[39] Second, though many small private Chinese mining firms are leaving Africa, large state-owned mining firms are expanding in Africa to take advantage of the low commodity prices.[40] "Mining executives say that with no need to answer to shareholders, many state-backed companies can take a long-term view on the country's demand for metals."[41] Examples include Jinchuan, which has acquired a nickel mine in Zambia; the China Non-Ferrous Metals Corporation, which is opening a copper-smelting plant in Zambia; and China Union, which has signed a contract to mine iron in Liberia.[42] Third, President Hu personally visited Africa as recently as February 2009, meeting with leaders in Mali, Tanzania, Senegal, and Mauritius.[43] This trip followed January visits by China's foreign minister, Yang Jiechi, to Rwanda, Uganda, Malawi, and South Africa, and the commerce minister, Chen Deming, to Kenya, Angola, and Zambia.[44] Finally, China has affirmed that despite the global economic crisis, it will fully satisfy all commitments it made at the 2006 FOCAC.[45] Additionally, in just the first two months of 2009, China announced agreements with thirteen African countries totaling over $15.9 billion in new loans and grants.[46]

Beyond these burgeoning financial relationships, China is expanding its training and educational assistance to Africa, of which there is a long history; such aid almost doubled in the 1990s.[47] China maintains educational relationships with fifty African countries and convened a Sino-African Education Minister Forum in 2005.[48] More African students now attend school in China than ever before (5,900 in 2007), most on Chinese-government-provided scholarships.[49] China has pledged to "double the number of such scholarships by 2011," "build 100 rural schools in Africa by 2009," and "establish 10 agricultural technology centers."[50] Between 2000 and 2003 China trained six thousand African professionals in such fields as agriculture, medicine, engineering, and education, and from 2004 through 2006 China claims to have trained 14,600 more.[51]

In addition to providing training, the Chinese Ministry of Health is developing "a long-term Chinese health strategy for Africa," one that includes "collaboration with the international community."[52] Approximately a thousand Chinese medical professionals (over half of them senior physicians or surgeons) are currently working in thirty-eight African countries.[53] At FOCAC in 2006 China pledged, by 2009, to "build 30 hospitals . . . [and] provide about $40 million in grants for anti-malarial drugs, prevention, and construction of model treatment centers."[54] Having already constructed a number of hospitals in Africa, China is planning to build ten more, as well as thirty malaria clinics, in the next three years.[55]

China's political presence in Africa is also growing but is in many ways less pervasive and less sophisticated than its economic presence. The International Department of the Communist Party of China maintains relationships "almost exclusively with ruling parties in one-party dominated states," eschewing with few exceptions (most notably South Africa's Democratic Alliance) interaction with "opposition parties for fear it will disturb its relationship with the government in power."[56] China has established four Confucius Institutes in Africa (with eight more to be completed soon), to teach the Chinese language, history, and culture, and to "promote an understanding of its view of the world."[57] Xinhua, China's state-run news agency, maintains offices across Africa, not only to report news but to gather information for the government.[58] Xinhua also trains African journalists, both in Africa and in China; a recent two-week seminar in China drew more than forty attendees from thirty African states.[59] A specialized China African News Service was launched by Xinhua in December 2007.[60] Interestingly, the Chinese press center distributed at the November 2006 FOCAC the book *China and Africa 1956–2006,* which presents democracy "as a scourge because it 'exacerbates' tensions inside African countries"; "Fortunately," the work observes, "the wave of democratization has started weakening."[61]

By comparison to both the economic and political, China's military ties in Africa are rather underdeveloped and static. Though China maintains security relationships, of some sort, with all forty-nine African countries with which it maintains diplomatic relations, it stations only between nine and fourteen military attachés in Africa and has never conducted a joint military exercise with an African state.[62] The People's Liberation Army (PLA) has, however, trained military personnel from at least eighteen African countries and established exchange agreements with twenty-five.[63] Almost 1,500 Chinese military personnel (primarily observers, engineers, police, and medical and transportation personnel) support seven of the eight United Nations peacekeeping operations in Africa, exceeding those of any other permanent member of the UN Security Council.[64] Some have criticized China's failure to provide substantial combat forces for actual peacekeeping, but deployment of support personnel may reflect a conscious policy to demonstrate support for Africa without appearing militarily threatening.[65] Furthermore, the emphasis on engineering and medical assistance is consistent with aspects of China's economic involvement. China also provides financial support to the African Union to support peacekeeping in Darfur and Somalia.[66]

China ranked third in arms exports to Africa from 2003 to 2006, behind Germany and Russia, providing approximately 15.4 percent ($500 million) of total sales to the continent.[67] Though relatively small in magnitude, the destinations

of arms shipments have drawn international criticism. China has become not only Zimbabwe's leading arms supplier but its second-largest trading partner.[68] With Zimbabwe under sanctions by both the United States and European Union (EU), China sold it fighter aircraft, air-defense systems, military vehicles, radio jamming equipment, and electronic surveillance gear.[69] In the case of Sudan, Chinese assistance in establishing three weapons factories has undermined the effectiveness of a UN arms embargo.[70] China also provided arms to both sides in conflicts between (and within) Ethiopia and Eritrea.[71]

The expansiveness of this activity appears consistent with the objectives stated in *China's Africa Policy,* though the broad wording of that document could be interpreted as encompassing virtually anything. Although there are few consistent themes from which to infer more precise intentions, the diversity of the engagement is in itself suggestive and, taken together with what few themes there are, indicates at least some of the specific objectives being promoted in Africa.

CHINESE OBJECTIVES

From these diverse activities, then, a handful of fairly concrete objectives in Africa can be deduced: ensuring access to natural resources, expanding export markets, enhancing China's prestige as a rising global power, and protecting its international freedom of action.[72] These theater-level strategic objectives support China's national strategic objectives, which in turn are driven by a domestic political need for economic growth and social stability:

> Economic development rather than military supremacy is the primary objective for China's international engagement for a host of reasons—not the least of which are to raise the living standards of its enormous population, to dampen social disaffection about economic and other inequities, and to sustain regime legitimacy after the demise of communist ideology as an acceptable organizing principle.[73]

Rapidly expanding Chinese interest in African natural resources, particularly oil, has driven much of the recent international concern regarding China's activities in Africa. China currently imports one-third of its oil from Africa; Angola now surpasses even Saudi Arabia as China's leading supplier.[74] However, despite this considerable growth, China still only imports 9 percent of Africa's total oil production, compared to 33 percent exported to Europe and 32 percent to the United States.[75] Also, China's per capita oil consumption is only 7.4 percent of that of the United States, though economic growth in China will certainly drive significantly higher consumption over time.[76] Most of the worry about Chinese acquisition of sources of supply appears to ignore the fact that China's tremendous economic growth, coupled with its massive foreign currency reserves, will

put it in an increasingly better position than virtually any other country to buy oil on the world market, whatever the ownership of the source. Nevertheless, "Beijing would like to secure this supply through ownership and investments, partly to avoid the price and supply uncertainty associated with buying such commodities on spot markets. These resources are deemed critical for Beijing to maintain the country's economic growth."[77] Moreover, unless China exhibits some elasticity of demand—that is, unless assurance of access alters consumption—Chinese use of oil from national investments overseas would reduce demand on global markets by an equivalent amount, yielding no net change. To the extent that China opens new sources of oil (such as in Sudan), global supplies actually increase. Most telling, perhaps, is the observation that "although approximately half of China's equity oil production worldwide comes from Africa . . . , the majority of that equity production is not shipped to China but sold on the world market."[78]

The comprehensive Chinese approach to economic development in Africa, focusing on infrastructure and increased diversification and encompassing training, education, and medical care, strongly suggests a balanced and long-term approach to promoting African economic growth. This is consistent with recognition that considerable growth in African economies over an extended period of time will be required if Africa is to overcome its tremendous poverty and generate the economic resources necessary for a substantial long-term Chinese export market. Whether this ongoing expansion into new markets is driven by a saturation of Chinese domestic markets or merely by the desire to supplement them is a subject of debate, but in either case the ability of expanded exports to foster economic growth while generating foreign currency reserves remains unquestioned.[79] In this manner, not only is economic growth supported (both current and long-term), but future access to the natural resources required for sustained performance is facilitated as well.

Manifestations of China's aspirations for global prestige take many forms, but perhaps the most obvious is the consistent demand that the People's Republic of China be accepted as the one and only China, of which Taiwan is only a subordinate province. This sole condition is imposed on virtually all diplomatic and economic relations between China and the countries of Africa, and it has proved remarkably effective: currently only four African countries recognize Taiwan, down from over twenty in the early 1990s.[80] Economically, China's emphasis on high-visibility projects not only ingratiates itself with African leaders but also culminates in lasting public testaments to Chinese largess and engineering prowess.[81] "If the growth in its power is to proceed unhampered over time, China will have to make its presence felt beyond its immediate environs."[82]

If it is true that "to the extent that China may exploit its soft power for strategic ends, it is to forestall possible 'containment' rather than to pursue expansion," ensuring freedom of action can be seen as fundamentally linked to China's myriad activities in Africa.[83] Strategically, legal ownership over sources of widely traded global commodities is largely irrelevant to a country able to outbid virtually any competitor in the global marketplace—*unless* a hostile international community colluded to impose mechanisms restricting sales to China. Similarly, aggressive expansion and development of export markets in Africa tend to forestall a catastrophic loss of trade should the West for any reason collectively elect to restrict Chinese trade.

> In pursuit of sustainable economic development, China also is seen to have placed a priority in keeping stable and relatively tension-free relations with its primary export market, the United States, and with other countries and regions. . . . [E]ven the appearance of a more overt pursuit of its regional and global interests could prompt the United States and other countries to strengthen their alliances or form other groupings to counterbalance and deter China's international outreach. Such a development in turn could fetter China's economic growth.[84]

In addition to protecting crucial elements of sustained economic growth, freedom of action is also intrinsic to the other perceived prerequisite to the continued rule of the Communist Party of China: its ability to impose social order domestically. This implies an international community in which national sovereignty is accepted as preempting international standards of human rights. According to *China's African Policy,* China would, for African states accepting the One-China principle, "coordinate positions on major international and regional issues and stand for mutual support on major issues concerning state sovereignty, territorial integrity, national dignity, and human rights."[85] Such a policy has manifested itself through Chinese activity in the UN Security Council in support of Sudan and Zimbabwe.[86] Since African states constitute over one-fourth of the UN General Assembly, courting their favor can yield substantial international clout, and it has already proved advantageous to China: "African states have been pivotal in preventing Taiwan from joining the World Health Organization and in tabling a condemnation of Chinese human rights practices at the U.N.'s Commission on Human Rights."[87]

The current global economic crisis raises questions about the sustainability of Chinese engagement in Africa. In the event of prolonged global economic stagnation, the Chinese Communist Party (CCP) will likely experience increasing pressure to redirect resources from African development to domestic development so as to assuage discontent stemming from rising unemployment and stalled improvement in living standards. However, while segments of the

Chinese population may resent the continued provision of foreign aid during a period of domestic need, the CCP will likely resist any major reductions, as it appears to recognize that its diplomatic clout will contribute to Chinese influence in shaping the eventual postcrisis global economic framework. In a February 2009 speech delivered in Tanzania, President Hu announced his desire to "deepen cooperation with African countries in such multilateral organizations as the UN and the World Trade Organization to address global challenges like climate change, food security, poverty alleviation and development. We also hope to participate jointly with them in developing international economic, financial and trade rules and pushing forward the international economic order in a fair and just manner."[88] Realizing this ambition would support, at least to some extent, all four of China's objectives in Africa.

Viewing Chinese activities in Africa in terms of these four principal objectives provides a useful framework within which to devise an appropriate theater-level response. However, inconsistencies between the long-term consequences of some actions and the objectives being sought become immediately apparent and require consideration.

COMPLICATIONS FOR CHINA

Though seemingly in the ascendant, China's pursuit of its objectives in Africa has become increasingly problematic, in that many of its activities are undermining achievement of its own long-term objectives. Several Chinese economic practices, for example, are significantly degrading China's popularity and threatening its long-term economic access. Heavy reliance on imported Chinese labor despite generally high unemployment among indigenous populations has drawn widespread criticism. Also, Chinese indifference to workers' rights does little to encourage recruiting or retention and instead has led to several highly publicized incidents.[89] In September 2002, a fire at a Chinese-owned factory in Nigeria killed at least thirty-seven Nigerians "after a factory foreman reportedly locked the building doors"; in early 2008, striking Chinese workers clashed with police in Equatorial Guinea, resulting in two deaths and several injuries.[90] An explosion at a Chinese-owned copper mine in Zambia in April 2005 killed over fifty people and led to demonstrations amid accusations that safety regulations had been ignored.[91] Anti-Chinese sentiment in that country reached such a level that opposition to the Chinese presence became the primary issue in the opposition campaign for the presidency in September 2006; five months later, President Hu "was forced to abandon plans to visit the 'Copper Belt' due to fears that the workers would revolt again."[92]

Another major economic issue raising widespread local ire is the undercutting of the market for local manufactured goods by the importation of

inexpensive products from China, particularly textiles.[93] In 2004, shopkeepers in Senegal protested against Chinese businesses, setting several on fire and prompting the president to suspend virtually all further issuance of visas to Chinese citizens.[94] The closure of uncompetitive local textile mills in several African countries, including Nigeria and South Africa, has incited protests and, in 2007, prompted the South African president to warn that Africa was in danger of becoming a Chinese colony.[95] Other economic complaints include the cancellation of, or failure to complete, several major projects and concerns that construction quality is not up to Western standards and may prove inadequate over time.[96] Also, in 2006, Gabon suspended a Chinese firm's oil drilling operations "due to its environmentally unsafe practices."[97]

Chinese military support to rogue regimes has also created friction between China and several African countries. A shipment of arms and ammunition intended for Zimbabwe in April 2008, in the midst of a disputed presidential election in that country, met with "the refusal of dockworkers in South Africa to offload the arms for overland shipment to Zimbabwe. The president of Zambia publicly criticized the shipment while the governments of Mozambique, Namibia, and Angola refused to allow the arms to be offloaded for transshipment to Harare."[98]

With Chinese attention focused on African heads of government and the political and business elites that support them, China makes correspondingly "little effort to cultivate Africans affiliated with civil society, labor unions, non-governmental organizations, opposition political parties, etc."[99] By largely isolating itself from local public opinion, China appears to exhibit a disregard for its significance until damage has already occurred. Ironically, as noted above, China is interested enough in public opinion to establish Confucius Institutes throughout Africa to promote its worldview but not enough to make an effort to understand public opinion before attempting to change it. Overall, "China seems to have difficulty maneuvering in countries more democratic than itself."[100] A prime example of this clumsiness is an assertion in the *People's Daily* of 30 December 2007 that Kenya was unsuitable for democracy and that its imposition by colonial powers was to blame for the postelection violence in that country—accusations immediately denounced by Kenyan media and civic organizations.[101] All of these diverse affronts to public opinion seriously jeopardize the prestige and influence sought by China in Africa.

Perhaps the greatest contradiction between current activities and long-term objectives lies in China's exploitation of conflict and rogue regimes. Though some observers claim, for example, that "China wants to keep political risks high enough to ensure that Chevron, Total, and Shell—companies that once had operations in Sudan—do not jump back in," such instability precludes

development of a robust market for its own exports and ultimately threatens Chinese investment and access to resources.[102] Chinese oil facilities in both Ethiopia and Sudan have been attacked by rebel forces; the Justice and Equality Movement in Sudan is specifically attempting to expel the Chinese for their support of the Sudanese government.[103] Furthermore, activity perceived as perpetuating or exacerbating instability diminishes China's prestige both in Africa and globally.

Also complicating a sustained prioritization of short-term political objectives is the ever-broadening range of Chinese actors and interests involved in Africa.[104] Moreover, resolution of conflicts between these diverse groups, particularly between government policy objectives and business profit incentives, is hindered by bureaucratic barriers.[105] In addition, direct government influence is waning, as "trade, investment, and other commercial activities combined have outpaced official development assistance (ODA) and become dominant in financial terms."[106] Despite an increase in annual ODA to Africa from $310 million in 1989–92 to $1–$1.5 billion in 2004–2005, the ratio of ODA to trade dropped from 20 percent to 3–4 percent over the same period.[107] This growth in trade and investment will create an increasingly powerful influence favoring long-term political and economic stability over short-term political opportunism.

Finally, successful economic growth and development, such as that fostered by Chinese activities, effectively makes such African countries less beholden to China. "Ironically, because of early help from the Chinese, Luanda may now have the means to avoid getting trapped in a relationship with a partner as voracious and demanding as China."[108] Moreover, African leaders are beginning to exploit China, offering contracts to China not with any intention of fulfilling them but rather to induce desired Western partners into offering more generous terms.[109] Niger, for example, successfully used such a strategy in negotiating uranium rights with a French company.[110]

Exploitive economic practices that generate political opposition and diplomatic approaches that favor one country over the combined opposition of the others in the region are clearly contrary to both the broad, stated objectives and the more specific, deducible objectives of China in Africa. In fact, they jeopardize China's political influence and economic access. At the same time, barring an event that generates a strong nationalistic response in China, the growing economic influence of both Chinese businesses and recipient countries will increasingly marginalize China's ability to act for purely political purposes. This fortuitous confluence of diverse factors creates a tremendous opportunity for AFRICOM to leverage Chinese initiatives in the furtherance of its own objectives.

A RECOMMENDED AFRICOM RESPONSE

Most of the literature examining China's involvement in Africa recommends coordinating aid, training, and other forms of assistance between China and Western donors so as to maximize its effectiveness in Africa. However, such recommendations are merely theoretical, in that they fail to address complications associated with practical implementation; most of all, they do not consider Chinese interests. Not only does the United States not control China, but it has very little direct influence over China, since deference to U.S. interests would undermine China's highly prized autonomy and prestige. Potentially, direct pressure applied to China could even be counterproductive, as China may feel obligated to take an opposing stance so as to avoid even the appearance of acquiescence to U.S. demands.

Therefore, China must be indirectly influenced by shaping the environment in such a way that its actions taken to advance its objectives simultaneously support American interests. Fortunately, a stable, secure Africa is in the long-term best interest of not only the United States and Africa but China as well. Recent political missteps aside, China's attainment of its objectives in Africa ultimately depends on a stable, secure environment for trade and the reliable flow of critical resources.

Consequently, Africa Command would do best not to oppose or undermine Chinese activities in Africa. Pressuring countries to choose between the United States and China would be a losing proposition: first, the United States would not always win (and where the United States did not win, its influence would decline precipitously, while that of China would rise proportionately); second, where the United States did win, China would be encouraged to subvert the system (if not the local political system, at least the existing international order); and third, since many African states favor ties with both China and the United States, such an action would create resentment and send the message that the United States was not really interested in supporting Africa, only in countering China, likely resulting in a sweeping reduction in U.S. influence across the continent.[111] At the same time, any attempts to impede Chinese activities or access would be seen by Beijing as highly threatening and would likely provoke it to adopt a stance subversive of the established international order if not outright hostile to the West. Conversely, because Chinese economic growth shows little, or even negative, correlation with that of the United States (or of the West as a whole), significant trade with both the United States and China could moderate economic cycles in Africa, thereby improving economic stability and thus contributing to political stability.[112]

Accordingly, even in cases of destructive or disruptive Chinese behavior, AFRICOM would appear well advised to avoid confronting Chinese actors

directly (particularly unilaterally) but rather to support the desired local responses of affected states and regional organizations. In other words, the most fruitful approach for Africa Command would seem to be not attempting to inhibit China from taking actions that degrade China's own influence and interests but in allowing them, while supporting the regional response to those actions—without usurping local leadership or imposing narrow U.S. interests.

In the context of Africa, however, China has shown increasing willingness to work with the international community. China has contributed to the International Monetary Fund–sponsored African Capacity Building Foundation, and in November 2004, it worked with the UN Development Program to establish the China-Africa Business Council.[113] Though China likely would not want to work directly with the United States, or probably even the EU, because it would not want to be (or be seen as) a junior partner, responsible Chinese initiatives should be publicly praised and supported wherever possible. The greater China's incorporation into the international community, the less it will need to maintain ties with rogue regimes, the more it will see the value of complying with accepted norms of international behavior, the more it will benefit from a stable international environment, and therefore the more likely that China will oppose destabilizing activities, in its own interest. China would simply have no reason to ignore or subvert an international system of which it was a major beneficiary and on the verge of becoming a significant leader. With China embracing stability, rogue African regimes will have few alternative sources of support and therefore experience greater pressure to reform. Recent moderation of Chinese stances toward Sudan (including persuading the government to accept an expanded UN presence and pressuring the government to alter its behavior and negotiate a solution to the conflict in Darfur) and Zimbabwe (including prohibiting Robert Mugabe's attendance at the 2008 Olympic opening ceremony and pressuring him to negotiate with the opposition Movement for Democratic Change) may indicate growing Chinese recognition of its evolving role in the international community.[114]

The recent, well publicized deployment of Chinese warships to the Gulf of Aden to counter the piracy threat, however, only superficially demonstrates participation in multilateral approaches to Africa. Fundamentally, these operations only tangentially address Africa's problems; they primarily serve to help secure Chinese commerce (primarily imports), though the Chinese warships have escorted, and responded to distress calls from, several foreign vessels.[115] These operations may also be reflective of both an emerging expeditionary capability and growing fear of a burgeoning Indian sea-denial capability in the Indian Ocean.[116] Finally, while this deployment does indicate a willingness on the part of China to take on new roles in the region, it also appears to indicate a

preference for independent action vice incorporation into existing Western-generated constructs, such as Combined Task Force (CTF) 151, with which the Chinese exchange e-mail but have expressed no interest in joining.[117] This is consistent with both the value the Chinese place on autonomy and their desire to eschew any position that could cause them to appear subordinate to the West. Moreover, such a deployment enables China to demonstrate great-power status and prestige through its willingness and ability to act unilaterally and operate independently. Thus, China is unlikely to be particularly receptive to U.S. overtures for joint action.

There is, however, a potential exception: were the United States publicly to request that China take the lead on a particular issue of interest to Africa, China would be under substantial pressure to do so. Such an approach could be politically palatable to China, since the United States would be publicly treating China as a great-power peer vice a subordinate or a second-class power. More important, Chinese refusal of such a request could be seen as an abdication of global and regional leadership, as well as a lack of concern for Africa's problems, resulting in a significant degradation in influence regionally and globally. Obviously, this approach would have to be applied sparingly, so as to retain its impact and prevent the appearance of American abdication of leadership.

Local threats to Chinese influence in Africa appear to have sparked in China emerging recognition of the value of moderating its behavior toward the continent. In his February 2009 speech in Tanzania, President Hu declared, "The Chinese government encourages and supports the competitive Chinese businesses to invest in Africa, create more jobs for the local people, increase technology transfer to the continent and urge[s] them to shoulder greater social responsibilities and live in harmony with local communities."[118] Diplomatically, growing realization of the threat to its economic interests, combined with international pressure, particularly from the AU and Chad, convinced China essentially to play the "good cop" to the rest of the world's "bad cop" toward Sudan.[119] This approach earned China praise from Andrew S. Natsios, former U.S. special envoy to Sudan, and Jendayi Frazer, Assistant Secretary of State for African Affairs, and proved broadly advantageous to China: "It increased its moral influence, reassured its partners in Africa and the West, safeguarded its oil empire in Sudan and uphold [*sic*] its prerequisite of sovereignty and state consent."[120] Similarly, it was African pressure (especially from Ethiopia) that prompted China to propose a peacekeeping mission in Somalia to the UN Security Council in 2006.[121] China, declared President Hu in his Tanzanian speech, will "play a constructive role of settling conflicts and hot issues and maintaining peace and security in Africa."[122]

Of course, there is no guarantee China will act in its own long-term best interest. However, should China refuse to remain productively engaged in Africa,

it will likely forfeit prior investment; jeopardize its own export market; betray its indifference to the states and people of Africa, costing itself international support; and effectively hand regional leadership to the West. The resulting sacrifice of economic strength and global prestige would be a considerable loss for China, and in that regard it may well serve as an incentive for China to continue along its current path of increasingly productive involvement.

Supporting responsible Chinese initiatives in Africa, however, does not mean abdicating theater leadership to China. Africa Command can actively promote American influence by demonstrating the benefits of American goodwill at the continental, regional, national, and local levels. Instead of previous approaches that alienated Africa by narrowly emphasizing counterterrorism and democracy building at the expense of local needs, recognition of the common long-term objectives of stability and security would further the AFRICOM mission while bolstering the American reputation in Africa by focusing on Africa's own priorities.[123] For example, the African Union's need for training, equipment, and financing is substantial, between its "massively under-resourced" Peace and Security Council and its request for international support to "stand up" an African Stand-by Force ("five regional brigades with rapid deployment capability").[124] Africa Command can provide or arrange for this support, possibly through the African Contingency Operations Training and Assistance program (ACOTA).[125]

Africa Command should also push to have administration of ACOTA transferred from the State Department Bureau of African Affairs. Replacing the current State Department civilian-contractor training staff with AFRICOM military personnel would not only allow continued training in peace enforcement and counterinsurgency skills but would also provide additional avenues for advancing U.S. security interests in Africa. In particular, this expanded military-to-military contact could be employed to enhance local military professionalism (with special emphasis in the areas of ethics, international law, and respect for civilian authority) and to develop rapport, cultivating positive, productive, and lasting working relationships with U.S. military personnel.[126] AFRICOM should then actively maintain these relationships to evaluate the effectiveness of the training provided and identify measures to improve its training program, to recognize when additional specialized training might be beneficial, and to facilitate coordination between AFRICOM and local military forces during a domestic crisis or regional peacekeeping operation (whether the United States is formally participating or not).[127] This broadened engagement would better improve African operational effectiveness and military professionalism while enhancing AFRICOM's credibility and influence.

Though extensive formal collaboration with China is unlikely, at least over the near term, Africa Command should attempt to work closely with all the other major actors in Africa. First of all, the command should leverage its European Command origins to facilitate coordination with EU initiatives and thereby garner European support while improving effectiveness and preventing redundancy. Second, AFRICOM should develop mechanisms to allow effective coordination with—and support for—both UN institutions and UN peace-keeping missions in Africa, whether or not the United States is formally partici-pating in any particular program or mission. This could help improve UN effectiveness while increasing international support for AFRICOM. Third, Af-rica Command should request a permanent AU presence at AFRICOM head-quarters to improve coordination, bolster AU credibility, and strengthen the command's legitimacy in the eyes of Africans. Fourth, Africa Command should meaningfully engage all the countries of Africa, not just those generating media coverage, with special attention paid to those in which the United States does not maintain an embassy, including Guinea-Bissau, Seychelles, Comoros, and São Tomé and Príncipe.[128] Since traditionally U.S. diplomatic engagement in Af-rica has been highly selective, more broadly based engagement could help allevi-ate lingering concerns over U.S. intentions and prior self-serving policies.[129] Fifth, Africa Command should proactively engage—and attempt to work with—other countries expanding their presence in Africa, including India, Rus-sia, and Brazil, to foster their stable, efficient integration while attempting to prevent future sources of conflict. Finally, Africa Command should indicate its receptiveness to working with China if and when China decides to do so. Positive Chinese relationships with the U.S. Coast Guard and the United Kingdom's De-partment for International Development could allow these organizations to serve as conduits by which AFRICOM could engage China and eventually help build upon the very limited collaboration demonstrated in Liberia, Ethiopia, and the Gulf of Aden.[130]

In addition, Africa Command can mobilize interagency support for African efforts to improve economic and political governance, such as the New Eco-nomic Partnership for Africa's Development, the African Peer Review Mecha-nism, and the West African Civil Society Forum.[131] AFRICOM should proactively assist in the implementation of recommendations from these civil organizations wherever possible—without attempting to insert itself into the decision-making process. Promotion of such governance initiatives would serve the dual purpose of promoting long-term social and political stability while si-multaneously countering the effect of Chinese support for authoritarian or cor-rupt regimes.

Another crucial area of African need is medical care. AIDS is a major focus of the South African Development Community, and AIDS and infectious diseases have been identified by Africans in polls as the "leading global threat."[132] There are an estimated twenty-five million HIV-infected people in Africa, representing 7.5 percent of fifteen-to-forty-nine-year-olds.[133] The majority of those dying from HIV-related diseases are "between 20 and 50 years of age, the most important group for a well-functioning economy, polity and society."[134] A conservative estimate places economic losses from HIV/AIDS at 2.6 percent of gross domestic product annually.[135] The greatest mortality, however, is from malaria, which kills an average of three thousand Africans every day.[136] AFRICOM would be well advised to redouble the efforts of military medical teams and interagency groups to address these issues. Simply making inexpensive family-planning options widely available could help limit the spread of HIV/AIDS while simultaneously contributing to controlling population growth and eventually eliminating the youth bulge.[137] This assistance would be particularly appreciated in the region if anticipated economic and demographic changes in China curtail the future availability of that nation's medical teams.[138]

These represent only a few examples of innumerable pressing African needs that can be at least partially addressed by Africa Command. The specific needs themselves, however, are not as important as the fact that AFRICOM would be advancing the common long-term objective of stability and security in Africa by responding to Africa's needs instead of narrowly promoting a U.S. agenda. By approaching our common objective from the African perspective vice our own, we demonstrate our goodwill toward the region and ultimately encourage the states and organizations of Africa to prefer the United States to China as a partner.

The fact that a stable and secure African environment is in the long-term best interest of the United States, Africa, and China means that AFRICOM can enhance U.S. influence in Africa while promoting U.S. objectives by actively supporting *African* interests, including those that involve Chinese economic development activities. Consequently, Africa Command should support productive, responsible behavior on the part of China in Africa, taking care neither to impede nor co-opt Chinese endeavors that further long-term American objectives in Africa.

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CLOSE ENCOUNTERS AT SEA

The USNS *Impeccable* Incident

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On 23 March 2001, the hydrographic survey ship USNS *Bowditch* (T-AGS 62) was conducting routine military survey operations in China's claimed exclusive economic zone (EEZ) in the Yellow Sea when it was "aggressively confronted" by a Chinese Jianheu III–class frigate and ordered to leave the EEZ.[1] Being an unarmed naval auxiliary vessel, *Bowditch* changed course and left the area as instructed. A few days later, the U.S. embassy filed a strongly worded diplomatic protest with the Chinese Ministry of Foreign Affairs, and *Bowditch* returned to the area of the encounter, this time with an armed U.S. escort, to continue its mission.[2]

Eight years and a new U.S. administration later, the People's Republic of China (PRC) has once again taken aggressive, unsafe, and unprofessional action against an unarmed naval auxiliary vessel—this time the ocean surveillance ship USNS *Impeccable* (T-AGOS 23)—that was engaged in lawful military activities in China's claimed EEZ. On 8 March 2009, five PRC vessels—a navy intelligence ship, a government fisheries-patrol vessel, a state oceanographic patrol vessel, and two small fishing trawlers—surrounded and harassed *Impeccable* approximately seventy-five miles south of Hainan Island in the South China Sea.[3] The fishing trawlers maneuvered within twenty-five feet of *Impeccable* and then intentionally stopped in front of it, forcing *Impeccable* to take emergency action to avoid a collision.[4] The U.S. government protested the PRC's actions as reckless, unprofessional, and unlawful. China responded that

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Impeccable's presence in China's claimed EEZ had been in violation of Chinese domestic law and international law.[5] *Impeccable* returned to the area the next day under escort of a guided-missile destroyer, the USS *Chung-Hoon* (DDG 93).

The PRC position with regard to coastal-state control over foreign military activities in the EEZ is threefold: national security interests, resource/environmental protection, and jurisdiction over marine scientific research (MSR). As discussed in detail below, the PRC's position is inconsistent with international law (including the 1982 UN Convention on the Law of the Sea) and state practice. The PRC's position is also somewhat disingenuous, as PRC naval units routinely conduct submarine operations, military survey operations, and surveillance/intelligence-collection operations in foreign EEZs throughout the Asia-Pacific region.

In short, nothing in the 1982 UN Convention on the Law of the Sea (UNCLOS) changes the right of military forces of all nations to conduct military activities in the exclusive economic zone. Moreover, prior to and subsequent to the adoption of UNCLOS military forces have routinely conducted military activities seaward of the twelve-nautical-mile territorial sea without coastal-state notice or consent. These activities include task-force maneuvering, flight operations, military exercises, weapons testing and firing, surveillance and reconnaissance operations (and other intelligence-gathering activities), and military marine data collection (military surveys).

THE EXCLUSIVE ECONOMIC ZONE

All coastal states may claim a two-hundred-nautical-mile EEZ (article 57). Combined, these EEZ claims encompass a large area of the world's ocean—nearly 30 percent—that twenty years ago was considered to be high seas.[6] The EEZ is a creature of UNCLOS, which created it for the purpose of giving coastal states greater control over the resources adjacent to their coasts out to two hundred nautical miles (articles 56 and 57). Coastal states were also granted jurisdiction in the EEZ over artificial islands and structures, MSR, and protection and preservation of the environment (article 56). Unfortunately, over the years some coastal states like China have sought to expand their jurisdiction in the EEZ by attempting to exercise control over non-resource-related activities, including many military activities. These illegal coastal-state restrictions in the EEZ take many forms, including prohibitions on military marine data collection (military surveys and hydrographic surveys), requirements of prior notice or consent to conduct military activities, environmental constraints on sovereign immune vessels and aircraft, and national-security restrictions. These excessive claims have no basis in customary international law or in UNCLOS, and they have been diplomatically

protested by the U.S. government and operationally challenged by the U.S. Navy and Air Force under the Freedom of Navigation Program since 1979.

Military Activities in the EEZ

Military uses of the seas are clearly a recognized right under international law. For centuries, the navies of the world have operated and trained in waters seaward of other nations' territorial seas without constraint or the consent of coastal states. This extensive state practice confirms that military activities at sea are lawful under customary international law and consistent with article 2(4) of the UN Charter. UNCLOS reaffirms this conclusion by limiting military activities in only a few narrow circumstances: while ships are engaged in innocent passage, transit passage, and archipelagic-sea-lanes passage (ASLP) (articles 19, 20, 39, 40, 52, and 54). Other international instruments also support the position that military activities at sea are lawful. For example, the International Maritime Organization/International Hydrographic Organization World-wide Navigational Warning Service specifically recognizes military activities at sea, such as naval exercises and missile firings, as proper, for which "naval area" warnings are to be issued.[7] Annex 15 to the Chicago Convention regarding Aeronautical Information Services similarly provides that military exercises that pose hazards to civil aviation are appropriate subjects for notices to airmen.[8]

Nothing in UNCLOS or state practice changes the right of military forces of all nations to conduct military activities in the exclusive economic zone without coastal-state notice or consent. The EEZ was not created to regulate military activities. Proposals during the Third UN Conference on the Law of the Sea (UNCLOS III) to include residual coastal-state security interest rights in the EEZ were considered and rejected.[9] UNCLOS article 56 makes clear that coastal states have limited sovereign rights in the EEZ for the purpose of exploring, exploiting, conserving, and managing the natural resources of the zone and with regard to other activities for the economic exploitation and exploration of the zone. The coastal state also has limited jurisdiction with regard to the establishment and use of artificial islands, installations, and structures, marine scientific research, and the protection and preservation of the marine environment. In exercising its rights and performing its duties in the EEZ, the coastal state is to have due regard to the rights and duties of other states and act in a manner compatible with the provisions of UNCLOS.

Pursuant to article 58 of UNCLOS, all states have the high-seas freedoms of navigation and overflight referred to in article 87 of UNCLOS and other internationally lawful uses of the sea related to these freedoms, such as those associated with the operation of ships and aircraft. As evidenced by long-standing state practice, the term "other internationally lawful uses" does not refer solely

to navigation and overflight rights but includes all lawful military activities. This point was clearly articulated by the American delegation to the UNCLOS III 1983:

> All States continue to enjoy in the [EEZ] traditional high seas freedoms of navigation and overflight and the laying of submarine cables and pipelines, and other internationally lawful uses of the sea related to those freedoms, which remain qualitatively and quantitatively the same as those freedoms when exercised seaward of the zone. Military operations, exercises and activities have always been regarded as internationally lawful uses of the sea. The right to conduct such activities will continue to be enjoyed by all States in the exclusive economic zone.[10]

The only limitation on the user state's rights and freedoms is a reciprocal due-regard requirement. In this regard, one can envision limited situations where legitimate military activities may be adjusted to respect coastal-state resource rights in the EEZ—for example, a proposed weapons exercise in close proximity to an active offshore oil platform. But these situations are the exception, not the rule, and cannot be dictated unilaterally by the coastal state. As discussed below, although foreign sovereign-immune vessels do not have to comply with coastal nations' domestic environmental regulations, U.S. Navy vessels operate with due regard for the marine environment. For example, when operating low- and midfrequency sonar systems anywhere around the world, U.S. Navy vessels voluntarily apply marine-mammal mitigation measures that provide extensive protection for the environment based on the best available science. The PRC has recently indicated that sonar use may harm marine mammals and fish stocks in its EEZ. However, there is no evidence that the Navy's sonar use, while applying these scientific protective measures, impacts either marine mammals or fish.[11] These measures are designed to allow the Navy to train realistically without harming the environment, and they far exceed the "due regard" requirement of article 58. In short, the PRC has no right under international law to force training restrictions or mitigation measures on foreign sovereign immune vessels operating in its EEZ.

Although coastal states enjoy environmental jurisdiction in the EEZ, application of environmental controls on foreign warships, naval auxiliaries (like *Impeccable* and *Bowditch*), and other government-owned or -operated noncommercial vessels and aircraft operating in the EEZ is strictly limited. Article 236 makes clear that the provisions of UNCLOS "regarding the protection and preservation of the marine environment do not apply to any warship, naval auxiliary, other vessels or aircraft owned or operated by a state and used, for the time being, only on government non-commercial service." The only requirement is that such vessels and aircraft are to act in a manner consistent

with the environmental provisions of UNCLOS, so far as is reasonable and practicable to do so, and to the extent that it does not impair the operations or operational capabilities of such vessels and aircraft.

It is also important to note that while UNCLOS does place certain limitations on military activities at sea, these restrictions are limited to ships engaged in innocent passage, transit passage, and ASLP. For example, article 19 limits certain military activities in the territorial sea, such as threat or use of force, use of weapons, intelligence gathering, acts of propaganda, launching and landing of aircraft and other military devices, and marine data collection (hydrographic surveys and military surveys). Article 52 applies these same limitations to archipelagic waters. Articles 20 and 52 provide that submarines must navigate on the surface when in innocent passage in the territorial sea or archipelagic waters. Articles 39 and 54 prohibit the threat or use of force when ships are engaged in transit passage or archipelagic-sea-lanes passage. Finally, articles 40 and 54 prohibit survey activities for ships engaged in transit passage or ASLP. No similar limitations are included in part V of UNCLOS and therefore they do not apply to foreign warships, military aircraft, or other sovereign, "immune" ships and aircraft in and over the EEZ. This conclusion is confirmed by the negotiating history of UNCLOS: efforts to include "security interests" as a protected coastal-state interest in the EEZ failed.[12]

Chinese reliance on the "peaceful purposes" provisions of UNCLOS (articles 88, 141, and 301) to regulate military activities in the EEZ is also clearly misplaced. Article 301 provides that "in exercising their rights and performing their duties under this Convention, States Parties shall refrain from any threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the principles of international law embodied in the Charter of the United Nations." Identical language can be found in article 2(4) of the UN Charter and in UNCLOS article 19.2(a). State practice since the adoption of UNCLOS confirms that the "peaceful purposes" provisions do not create new rights or obligations, nor do they impose restraints on traditional military operations at sea that are consistent with international law, including the UN Charter. These provisions simply require states to exercise their rights and perform their duties under UNCLOS in accordance with their duty under article 2(4) of the UN Charter to refrain from the threat or use of force against the territorial integrity or political independence of any state. Military surveillance and reconnaissance operations in international airspace, however, do not equate to a "threat or use of force against the territorial integrity or political independence of any state." Long-standing state practice, as well as UNCLOS, supports the conclusion that such operations are lawful and consistent with the UN Charter. In this regard, UNCLOS article 19 makes a clear

distinction between a "threat or use of force against the sovereignty, territorial integrity or political independence of the coastal state" and "any act aimed at collecting information to the prejudice of the defense or security of the coastal state."[13] Both are prohibited in the territorial sea for ships engaged in innocent passage, but they are clearly distinct and independent activities. UNCLOS article 19(2) makes a similar distinction between "threat or use of force" and other military activities at sea that are consistent with article 2(4) of the UN Charter, such as military exercises, weapons testing, use of ordnance, and military marine data collection (military surveys and hydrographic surveys).

Marine Data Collection in the EEZ

Although coastal states can clearly regulate marine scientific research in the exclusive economic zone, marine data collection is much broader. "Marine data collection" is a general term referring to all types of collection activities at sea, including MSR, military surveys, and hydrographic surveys. UNCLOS applies different rules to each of these activities, depending on where the activities take place.

"Marine scientific research," in contrast, indicates activities undertaken to expand scientific knowledge of the marine environment and its processes. Classes of data collected could be related to oceanography, marine biology, fisheries research, scientific ocean drilling or coring, or geological or geophysical studies. The data is usually shared among the public and scientific communities. Hydrographic surveys, on the other hand, are conducted to support safety of navigation. The data collected is normally used to produce nautical charts and similar products. That is, hydrographic survey is not MSR. Neither is military survey considered to be MSR, because it is conducted for military, not scientific, purposes. The data collected may be either classified or unclassified; it is normally not released to the public or scientific community unless it is unclassified and was collected on the high seas. Such collected data could be oceanographic, hydrographic, marine geological or geophysical, chemical, acoustic, or biological. Although the means of data collection are often similar and to the coastal state may appear indistinguishable from marine scientific research, it is the military or safety use to which the data is put that distinguishes military surveys and hydrographic surveys from MSR.

On the basis of these distinctions and the plain language of UNCLOS, military surveys and hydrographic surveys remain high-seas freedoms and may be conducted in foreign EEZs and on foreign continental shelves without coastal-state notice or consent. Coastal-state consent is only required for such survey activities in territorial seas and archipelagic waters. The following provisions of UNCLOS support this conclusion:

- Research or survey activities are inconsistent with innocent passage (article 19[2][j]).

- Ships in transit passage or archipelagic-sea-lanes passage may not carry out research or survey activities (articles 40 and 54).

- Part XIII applies only to MSR and does not refer to survey activities.

WHY THIS IS IMPORTANT: THE EP-3 INCIDENT

In order to avoid conflict and potential miscalculations at sea and in the air between U.S. and Chinese forces, both sides need to have a clear understanding of their respective rights in and over the EEZ as coastal and user states. We certainly do not want a repeat of the EP-3 incident.[14] On the morning of 1 April 2001, a week after the *Bowditch* incident discussed earlier, two Chinese F-8 fighter aircraft intercepted a U.S. EP-3 that was conducting a routine reconnaissance flight about seventy miles south/southeast of Hainan Island. After making several close approaches to the American aircraft, one of the F-8s lost control and collided with the EP-3. The F-8 was chopped in half; the nose cone and number-one propeller of the EP-3 were severely damaged. The Chinese pilot ejected but was never found and was presumed dead. The EP-3 was forced to make an emergency landing at the Lingshui military airfield on Hainan. The cause of the collision is still a matter of dispute. The PRC claims that the EP-3 swerved into the flight path and rammed the F-8. The United States claims that the F-8 ran into the larger, slower, and less maneuverable EP-3. I will not go into the details here but would only suggest that the laws of physics do not support the Chinese position—and leave it at that.

Some of the legal issues raised by the PRC following this incident included the validity of coastal-state security interests in the exclusive economic zone, the legality of surveillance and reconnaissance flights over the EEZ, and the applicability of the due-regard requirement when conducting air intercepts.

As previously discussed, coastal states lack security interests in the EEZ. Nothing in UNCLOS supports the PRC position. Similarly, the Chinese position that the freedom of overflight reflected in UNCLOS article 58 is a narrow right, including only the right to transit the airspace above the EEZ, is not supported by UNCLOS, other international agreements, or state practice. On the contrary, the negotiating history of UNCLOS and state practice before, during, and after UNCLOS support the conclusion that freedoms of navigation and overflight in the EEZ are broad freedoms; it is coastal-state rights in the EEZ that are narrowly limited. As we have seen, UNCLOS article 58 is quite clear: all states enjoy the freedoms of navigation and overflight and other internationally lawful uses of the seas related to these freedoms, such as those associated with the operation of

ships and aircraft. Long-standing state practice supports the position that surveillance and reconnaissance operations conducted in international airspace beyond the twelve-nautical-mile territorial sea are lawful activities. Since the end of World War II, surveillance and reconnaissance operations in international airspace have become a matter of routine. Many nations, including the PRC, engage in such activities on a routine basis. Moreover, as previously discussed, UNCLOS article 19.2(c) prohibits intelligence-gathering activities by ships engaged in innocent passage through the territorial sea—as noted above, no similar prohibition is contained in part V of UNCLOS, and therefore, surveillance and reconnaissance activities are permitted in the EEZ. The PRC has an obligation under UNCLOS article 56 to exercise its limited resource-related rights in the EEZ with due regard for the rights of other states to engage in lawful military activities, including surveillance and reconnaissance operations, in the zone.

With regard to surveillance and reconnaissance flights over the EEZ, it is also important to note that coastal states lack competence to regulate military activities in the airspace above the EEZ. Articles 2 and 49 of UNCLOS make clear that the airspace above the territorial sea and archipelagic waters is national airspace, subject to coastal-state/archipelagic-state sovereignty. Similar language is found in article 1 of the Convention on International Civil Aviation of 1944 (known as the Chicago Convention) with regard to the territorial sea. Beyond the twelve-mile limit, however, is international airspace. Neither UNCLOS nor the Chicago Convention grant coastal states any authority over military aircraft operating in international airspace above the EEZ. Coastal-state sovereign rights in the zone are limited to the seabed, its subsoil, and the waters superjacent to the seabed, with one exception—the coastal state has sovereign rights with regard to the production of energy from the winds (UNCLOS article 56). Therefore, nothing in UNCLOS provides a legal basis for regulating military activities in the airspace above the EEZ. UNCLOS does, however, clearly provide that in the EEZ all states enjoy, among other things, freedom of navigation and overflight and other internationally lawful uses of the sea. The only caveat is that in exercising their high-seas freedoms in the EEZ, states shall have "due regard" to the rights and duties of the coastal state and shall comply with the laws and regulations adopted by the coastal state in accordance with the provisions of UNCLOS and other rules of international law *"in so far as they are not incompatible"* with part V of UNCLOS (article 58, emphasis added). Similarly, the provisions of the Chicago Convention do not apply to state aircraft, which include all aircraft used in military, customs, and police services. The only requirement is that state aircraft fly with "due regard" for the safety of navigation of civil aircraft.[15]

THE WAY FORWARD

The PRC can expect U.S. warships, military aircraft, and naval auxiliaries like *Impeccable* and *Bowditch* to continue to operate in its claimed EEZ, in accordance with the rights and freedoms guaranteed to all nations under international law. If the PRC has an issue with continued American military presence in its EEZ, the PRC should raise its concerns not via bridge-to-bridge communications, in the open press, or via diplomatic protests but directly with the United States and attempt to reach a mutually acceptable solution within the context of the Military Maritime Consultative Agreement (MMCA).[16] Some have suggested that it may be time for the United States to negotiate an INCSEA-like agreement with China to avoid confrontations of this nature.[17] However, I do not believe such an agreement is necessary, as the MMCA was specifically established to facilitate consultations between the U.S. Department of Defense and the PRC Ministry of National Defense for the "purpose of promoting common understandings regarding activities undertaken by their respective maritime and air forces when operating in accordance with international law."[18] Unfortunately, MMCA has failed to live up to expectations in this regard, primarily because of the PRC's unwillingness to engage in a serious debate on this important issue. A solution can be reached if both sides act in good faith and apply themselves, but as the saying goes, "it takes two to tango." I would point to the 1989 Uniform Interpretation of Rules of International Law Governing Innocent Passage, agreed to by the United States and the Soviet Union after a 1988 Black Sea "bumping" incident, as an example of how two nations with differing views can reach a mutually acceptable solution to a politically charged national-security issue. (In the 1988 case, the issue was the right of innocent passage of warships through the territorial sea without prior notice to or consent of the coastal state.)[19]

Until a mutually acceptable solution is reached, PRC ships and aircraft should immediately cease their aggressive, unlawful, and unsafe maneuvers in the vicinity of U.S. ships and aircraft, as was recently witnessed near *Impeccable*. In addition to complying with their legal obligations under the Collision Regulations, Chinese ships and aircraft should—as has been suggested by the United States on numerous occasions—also abide by internationally recognized codes and signals. The Code for Unalerted Encounters at Sea, or CUES, issued by the Western Pacific Naval Symposium, offers safety measures and procedures, as well as a means to limit mutual interference and uncertainty and to facilitate communication when warships, submarines, public vessels, or naval aircraft make contact. Standard safety procedures are contained in part 3, standard communications procedures in part 4, and "Selected Signals Vocabulary and Basic Maneuvering Instructions" in part 5. The NATO publication *Multinational Maritime Tactical Instructions*

and Procedures, MTP 1(D), vol. 1, provides doctrine, tactics, instructions, and procedures governing the command, control, and maneuvering of all maritime units. Position, movement, and maneuvering are addressed in chapter 2, communications in chapter 3.

The proliferation of excessive coastal-state restrictions on military activities in the exclusive economic zone should be a growing concern to all maritime nations. Such restrictions are inconsistent with the 1982 UN Convention on the Law of the Sea and customary international law, and they erode the balance of interests that was carefully crafted during the nine-year negotiations that led to the adoption of UNCLOS. All nations must remain engaged, both domestically and internationally, in preserving operational flexibility and ensuring that the balance of interests reflected in UNCLOS is not eroded any further. The bottom line is that while UNCLOS grants coastal states sovereign rights for the purpose of exploring, exploiting, conserving, and managing the natural resources in the EEZs, it does not authorize them to interfere with legitimate military activities, which include much more than just navigation and overflight. Accordingly, U.S. warships, military aircraft and other sovereign immune ships and aircraft will continue to exercise their rights and freedoms in foreign EEZs, including China's, in accordance with international law.

NOTES

The views expressed in this paper are those of the author and do not represent the official policy or position of the Department of Defense, U.S. Pacific Command, or the Department of the Navy.

1. Chris Plante, "U.S. Quietly Resumes Surveillance Flights off China," CNN.com/U.S., 15 May 2001; Mark Oliva, "Before EP-3, China Turned Away U.S. Research Ship in International Waters," *Stars and Stripes,* 20 May 2001, available at www.stripes.com/; Shirley A. Kan (coordinator), *China-U.S. Aircraft Collision Incident of April 2001: Assessments and Policy Implications,* CRS Report for Congress (Washington, D.C.: Congressional Research Service, 10 October 2001).

2. Personal knowledge of the author, who served as the Special Assistant for Ocean Policy to the Under Secretary of Defense for Policy from June 1997 to September 2001.

3. Ann Scott Tyson, "China Draws U.S. Protest over Shadowing of Ships," *Washington Post,* 10 March 2009, p. A8; Dan De Luce, "Chinese Ships 'Harassed USNS Impeccable,'" Agence France-Presse, 10 March 2009, available at www.theaustralian.news.com.au/.

4. The unsafe actions by the PRC fishing vessels clearly violated their obligations under the "International Regulations for Preventing Collisions at Sea" (1972), in particular rules 8, 13, 15, 16, and 18.

5. "Naked Aggression: China and America Spar at Sea with an Impeccable Sense of Timing," *Economist,* 12 March 2009.

6. This is particularly apparent in the Asia-Pacific region, where there are a number of overlapping two-hundred-nautical-mile EEZ claims.

7. *IMO/IHO World-wide Navigational Warning Service Guidance Document,* annex 1, para.

4.2.1.3.12, www.iho.shom.fr/COMMITTEES/
CPRNW/A.706-17_as_amended.pdf.

8. "Chicago Convention," annex 15, para.
5.1.1.1.(l). See the Aeronautical Information
Services website, at *Federal Aviation Adminis-
tration,* www.faa.gov/.

9. Satya N. Nandan and Shabtai Rosenne, gen.
eds., *United Nations Convention on the Law of
the Sea 1982: A Commentary* (Herndon, Va.:
Brill, 1993), vol. 2 [hereafter Nandan and
Rosenne, *Commentary*], pp. 521–44.

10. *Official Records of the Third U.N. Conference
on the Law of the Sea,* vol. 17, *Plenary Meet-
ings,* Doc.A/CONF.62/WS/37 and ADD.1 and
2 (New York: United Nations, n.d.), p. 243.

11. Some of the measures are "stationing spe-
cially trained lookouts to look for marine
mammals, passive acoustic monitoring for
marine mammals, establishing safety zones
around ships where sonar power is reduced
or shut down if marine mammals are sighted,
and employing extra precautions during
chokepoint exercises." *U.S. Department of
Defense News Release 0041-07,* 16 January
2008, available at www.defenselink.mil/
releases. Also see www.whalesandsonar.navy
.mil.

12. Nandan and Rosenne, *Commentary.*

13. Compare articles 19.2(a) and 19.2(c).

14. The author was the legal adviser to the U.S.
delegation sent to China to negotiate the re-
lease of the U.S. aircrew and return of the
EP-3 aircraft. Facts recited in this section are
based on personal knowledge of the author.

15. "Chicago Convention," art. 3.

16. "Agreement between the Department of De-
fense of the United States of America and the
Ministry of National Defense of the People's
Republic of China on Establishing a Consul-
tation Mechanism to Strengthen Military
Maritime Safety (19 January 1998) [hereafter
MMCA]," available at www.state.gov/.

17. "Agreement with the United States on the
Prevention of Incidents on or over the High
Seas, May 25, 1972," 23 *UST* 1168, *TIAS* no.
7379, 852 *UNTS* 151, as amended by the Pro-
tocol of May 22, 1973, 24 *UST* 1063, *TIAS* no.
7624, and by the 1998 exchange of diplomatic
notes.

18. MMCA, art. I.

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GRASPING "THE INFLUENCE OF LAW ON SEA POWER"

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Over the past two decades international maritime law has evolved from a set of rules designed to avoid naval warfare, by keeping maritime powers apart, toward a new global framework designed to facilitate maritime security cooperation, by bringing naval forces together to collaborate toward achieving common goals. The effects of this change are far-reaching—for the first time, law is a force multiplier for pursuing shared responsibilities in the maritime domain. In a departure from the past hundred years of state practice, the contemporary focus of international maritime law now is constructive and prospective, broadening partnerships for enhancing port security, as well as coastal and inshore safety, extending maritime domain awareness, and countering threats at sea. In contrast, the predominant influence of law on sea power from the first Hague conference in 1899, through two world wars, and continuing until the end of the Cold War, was focused on developing naval arms-control regimes, refining the laws of naval warfare, and prescribing conduct at sea to erect "firewalls" that separated opposing fleets. The maritime treaties were designed to maintain the peace or prevent the expansion of war at sea by controlling the types and numbers of warships and their weapons systems and by reducing provocative or risky behavior.

Today treaties do more than reduce friction and build confidence: contemporary international maritime agreements spread safety and security through networks or coalitions. Laws and international

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institutions have become catalysts for fostering coordination among states and distributed maritime forces and spreading the rule of law at sea, and as a consequence, the strategic, operational, and political "landscapes" of the oceans have decisively changed.

The remainder of this article is divided broadly into four sections. First, it is essential to describe briefly the major features of historical international maritime law, which traditionally focused on the law of naval warfare and naval arms control. This survey extends from the beginning of the Hague Law, at the turn of the nineteenth century and beginning of the twentieth, to the Jackson Hole Agreement between the superpowers at the end of the Cold War. Along the way, high points in the terrain include the treaty system negotiated by the five greatest naval powers at the Washington Conference in 1921–22, the naval arms-limitations agreements that were extended at the London Naval Conference of 1930, and the several Cold War treaties, such as the Seabed Treaty and the Incidents at Sea (INCSEA) agreement.[1] The dean of this school of traditional international maritime law was the late New Zealand scholar D. P. O'Connell, who published his influential *The Influence of Law on Sea Power* in 1975.[2] O'Connell passed away in 1979, and since that time both international maritime law and naval warfare have been transformed to reflect changing patterns in the distribution of power within the world system and in the role of naval forces. O'Connell delineated the function of international law in naval planning by focusing largely on the law of naval warfare, and his seminal volume epitomizes the relationship between sea power and international law over the previous century.

In the second section the article shifts toward an explanation of the relationship between law and sea power since the fall of the Berlin Wall and highlights the primary characteristics of international maritime law today. In doing so, this analysis fills a void by connecting the major legal initiatives for maritime security to the prevailing world political system, just as O'Connell did for a very different world more than thirty years ago. Recently emerging maritime treaties and partnerships have transformed international maritime law and thereby reconfigured the nature of sea power by creating agreements to unite collective efforts to enhance global shipping and combat maritime piracy, terrorism, proliferation of weapons of mass destruction, and narcotics trafficking. These new regimes presage an integrated and cooperative approach, and their development over the past two decades has shaped the diplomatic space to such extent that they now may be seen as collectively the principal impetus for the 2007 U.S. maritime strategy, *A Cooperative Strategy for 21st Century Seapower.*[3] In that sense, the new maritime strategy was not a revolutionary document but a lagging indicator of the changes in the legal and policy frameworks evolving in the

global maritime system, and to that extent the document merely leveraged the emergence of new cooperative relationships. For the first time, international law is serving as a force multiplier for sea power, promoting maritime security both globally and regionally, by broadening maritime partnerships and developing emerging norms.

Third, the article turns to offer a roadmap of the most important international maritime security treaties, agreements, and partnerships. These treaties and agreements include the 1982 Law of the Sea Convention (UNCLOS), which entered into force in 1994 and is the umbrella framework for international law in the maritime domain, as well as such post-9/11 updates to older agreements as the 1948 Convention on the International Maritime Organization (IMO) and recent revisions to the 1974 Safety of Life at Sea (SOLAS) Convention. Furthermore, the authorities contained in the 1988 Convention on the Suppression of Unlawful Acts against the Safety of Maritime Navigation and especially the 2005 protocols thereto, and even the applicability of enforcement action in the maritime domain under Chapter VII of the United Nations Charter by the Security Council, have all been expanded in recent years. These and other agreements are creating a network of complementary and interlocking legal and policy authorities that form the basis for the new maritime order.

Having placed these agreements and partnerships in an analytical context, the article provides a brief description of some of the principal initiatives. The depth of the new measures and the creation of the self-perpetuating legal and policy networks that propel them mean law now plays a defining role with respect to modern notions of sea power. International law is becoming just as important as—indeed more important than—aircraft carriers and submarines for ensuring global maritime security, because it unites the international community in pursuit of common goals.

Finally, the article concludes that because international maritime law has risen in importance, the United States should adopt a more savvy approach to maritime diplomacy. Competing narratives or contending visions of international maritime law and contests with competitor states over how to shape the future order of the oceans should move from relative obscurity to the front burner. The aggressive Chinese "swarming" ship maneuvers against the military survey vessel USNS *Impeccable* while it was operating in the East China Sea in early March 2009 demonstrate how inextricably these issues are connected to diplomacy and national security. This will require national-level leadership from the National Security Council to ensure that all agencies and departments are aligned on these issues and strongly advocate legal and policy positions that clearly prioritize American security interests over other U.S. interests in the oceans, such as the preservation of the marine environment and climate change.

The United States was the primary impetus for developing the new international maritime law, but it remains to be seen whether it will be the most influential country in the shaping of the future maritime order.

HISTORICAL INTERNATIONAL MARITIME LAW

Early maritime law was designed to ameliorate conflict at sea. Perhaps the first law directly affecting sea power was the set of customary rules governing the law of "prize"—that is, the capture of vessels in wartime. Prize arose under the concept of neutrality and of neutral goods that are exempt from capture by a belligerent anywhere on the high seas. The rule was recognized as early as 1164 and subsequently included in the *Consolato de Mare,* widely adopted by Mediterranean city-states in the High Middle Ages. Early prize law evolved continuously throughout the early modern era, with its greatest prominence stretching from the mid-fifteenth century to mid-nineteenth. In 1618, the Dutch jurist Hugo Grotius cogently set forth the natural-law doctrine of "freedom of the seas," a concept that preserved access to the seas for all nations and thereby fueled an explosion in international trade. Grotius's law setting forth the legal divisions of the oceans was validated in the mid-seventeenth century, when the Bourbon and Hapsburg rivalry engulfed central Europe in the Thirty Years' War. The conflict was brought to a close with the peace of Westphalia in 1648. The Treaty of Westphalia was an epochal document, recognizing sovereignty over land areas under individual autonomous rulers and ushering in the era of the modern nation-state. Whereas the complex treaty recognized that states exercise complete authority over and are responsible for maintaining security inside their borders, it was manifest that no nation could exercise sovereignty over the oceans. For four hundred years, international law regarding land areas was governed principally by the canon of state sovereignty reflected in the 1648 Treaty of Westphalia, and the rules pertaining to the oceans derived from the complementary doctrine of freedom of the seas.

In addition to promoting freedom of the seas, British and, later, American governments championed international law and international institutions as necessary for the foundation of an effective world system of stability and conflict avoidance. In doing so, "the United States and Great Britain looked at the world in a different way than have most of the European countries," writes Walter Russell Mead. "The British Empire was, and the United States is, concerned not just with the balance of power in one particular corner of the world but with the evolution of what we today call 'world order.'"[4] Over the last two hundred years the singular leadership roles of the United States and the United Kingdom in advancing a security paradigm based on both sea power and international law have been critical for international security. In developing and

maintaining the order, the United Kingdom and the United States have had, be-
tween them, outsized influence on the shape of maritime law and its effect on
war prevention, naval warfare, and grand strategy.

Law of Naval Warfare

By 1758, the Swiss lawyer and diplomat Emmerich de Vattel had expounded two
fundamental principles of the law of neutrality that had gained widespread ac-
ceptance: belligerents were obligated to respect the neutrality of states remain-
ing neutral, and a neutral state had a duty to remain impartial. In 1856, at the
end of the Crimean War, the plenipotentiaries adopted the nonbinding Declara-
tion Respecting Maritime Law, in conjunction with the Treaty of Peace.[5] The
1856 declaration abolished the practice of privateering and provided that a neu-
tral flag covers enemy goods, except contraband that could support the war ef-
fort, and furthermore that neutral goods, except contraband, are exempt from
enemy capture.

Prize courts applied the doctrine of "continuous voyage" and "ultimate desti-
nation" to look beyond the stated destination of a vessel or goods to ascertain
whether the final destination was an enemy state. A proposal for an interna-
tional prize court, reduced to writing in the Convention of an International
Prize Court 1907 (Hague No. XII of 1907), never entered into force because it
did not secure any state ratification. In 1909, however, the Declaration of Lon-
don Concerning the Laws of Naval War adopted the doctrine of ultimate desti-
nation, which permitted capture of absolute contraband whether its route to an
ultimate destination in enemy territory was direct or indirect and circuitous,
through neutral state waters or ports.[6] Aside from its rules of prize and capture,
the Declaration of London was the definitive code of naval warfare for its day. It
was observed by several nations during World War I, although the document
never entered into legal force.

The first Hague Peace Conference, which met in 1899, adopted the Conven-
tion for the Adaptation to Maritime Warfare of the Principles of the Geneva
Convention of 1864 (Hague III).[7] The 1868 Additional Articles Relating to the
Condition of Wounded in War provided protections for certain categories of
persons at sea.[8] The second Hague Peace Conference in 1907 adopted seven trea-
ties relating to naval operations, which include the Convention (No. VI) Relat-
ing to the Status of Enemy Merchant Ships at the Outbreak of Hostilities; the
Convention (No. VII) Relating to the Conversion of Merchant Ships into War-
ships; the Convention (No. VIII) Relative to the Laying of Automatic Submarine
Contact Mines;[9] the Convention (No. IX) Concerning Bombardment by Naval
Forces in Time of War; the Convention (No. X) for the Adaptation to Maritime
Warfare of the Principles of the Geneva Convention;[10] the Convention (No. XI)

on Restrictions with Regard to the Exercise of the Right of Capture in Naval War; and the Convention (No. XIII) Concerning the Rights and Duties of Neutral Powers in Case of Maritime War. This corpus of Hague law was complemented by the Helsinki Principles on the Law of Maritime Neutrality, which codified the rules applicable to the relations between parties to a conflict and provided that neutral states should be governed by the law of peace, not war.[11] For example, article 2 reduced to writing the customary law permitting belligerent states to intervene in neutral waters against another party to the conflict if the neutral coastal state either allowed or tolerated the misuse of its territorial sea.

For most of this period, international law influenced naval power through normative restraints on methods and means of warfare, such as proscribing unrestricted antisubmarine warfare during World Wars I and II and shaping naval force structures through ceilings on warship type and tonnage. At sea this meant controlling the application of force in interstate conflict throughout the oceans—by, for example, rules governing naval bombardment and mine warfare—and calibrating the exercise of naval self-defense. Customary international law and the 1936 London Protocol prohibited destruction of enemy merchant vessels unless the passengers and crew were first disembarked and their safety assured.[12] This rule did not apply if the merchant vessel resisted the belligerent's right of visit and search to determine the enemy character of the vessel. During World War II, however, both the Axis and the Allies routinely disregarded this rule and intentionally targeted the merchant ships of the enemy, in campaigns of unrestricted submarine warfare.

Finally, the Second Geneva Convention of 1949 restated customary rules for international humanitarian law applicable to international armed conflict at sea.[13] The humanitarian principles of common article 3 prescribe rules pertaining to the treatment of surrendered, wounded, and shipwrecked sailors.

Law of Naval Arms Control

While the law of armed conflict sought to reduce the effects of war upon those placed out of combat, the law of naval arms control sought to restrict the development of ever-greater instruments of war at sea. During the period between the two world wars, the Washington Treaty of 1922 fixed battleship ratios for all the major maritime powers.[14] Following the abrogation of the Treaty of Versailles by Germany in 1935, Germany and the United Kingdom concluded the Anglo-German Naval Agreement, limiting the German navy to 35 percent of the Royal Navy and requiring Germany to conform to the rules of the Washington Treaty.[15] Despite cheating among some of the parties, the agreement actually did slow the construction and size of capital warships. Perversely, however, the pact also provided incentives for states to redirect naval ambitions into other systems, such as submarines, that were not explicitly controlled.

During the Cold War, Western security ultimately was dependent upon strategic deterrence. The primary function of international law was to prevent superpower conflict, in particular to reduce the likelihood of nuclear war. In that setting, international law took the form of nuclear and conventional arms-control regimes, which were important parts of the broader equation of managing superpower competition. The 1971 Seabed Treaty, for example, slowed the spread of nuclear weapons by banning their emplacement on the floor of the ocean beyond twelve nautical miles from the coastline. Similarly, the 1963 Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water sought to stop the introduction of nuclear capabilities into new areas of the global commons. One of the few agreements that represented a departure from the law of naval war and the naval arms-control paradigm was an August 1944 agreement, Coordinated Control of Merchant Shipping, in which the Allied powers agreed to pool and cooperatively manage shipping resources under their jurisdiction as the war was winding down in

NORMATIVE FRAMEWORKS FOR MARITIME SECURITY: PAST AND PRESENT

Elements	Past	Present
Maritime Security Paradigm	Hegemony	Collaboration
Principal Area of Operation	High seas—seaward of the exclusive economic zone	Littorals—landward of the exclusive economic zone
Threat Vector	Concentrated; conventional forces; strategic nuclear missiles	Diffuse; commercial shipping; weapons of mass destruction
Optempo	Routine	Unpredictable
International Legal Authorities	UN Charter; customary international law of the sea; bilateral superpower agreements for war prevention	UN Charter; Law of the Sea Convention; global and regional multilateral regimes for maritime safety, security, and environmental protection
International Institutions	Contending alliances: NATO (1949–present) Warsaw Pact (1955–91) SEATO (1954–77) CENTO (1955–79)	Multilateral regimes: Law of the Sea Convention (1982–present) International Maritime Organization (1948–present) Proliferation Security Initiative (2003–present) Suppression of Unlawful Acts at Sea (2009?–present)

Europe and the Far East.[16] Law also served a channeling function to guide behavior toward less confrontational conduct, as illustrated by the INCSEA agreement of 1972, designed to avoid an unintended conflict between American and Soviet naval forces.

Today, in contrast to the past "build-out" in the law of naval warfare and naval arms control, the new international maritime law is inclusive rather than exclusive, inviting any country to cooperate; it is progressive rather than conservative, seeking to promote and integrate international maritime networks rather than capture and restrict the activities of the major maritime states. Made possible by the end of the Cold War, the new international maritime law experienced its greatest growth in response to global cargo-chain security and maritime homeland security after the attacks of 9/11.

THE CONTEMPORARY ERA

International law has experienced dramatic growth and change since the 1970s, both becoming more diffuse and exerting a more powerful influence on the world system than in previous time. Over the past twenty years, seismic changes in the world system—the collapse of the Soviet Union and the terrorist attacks of 9/11—have caused international law to evolve quickly in order to accommodate, and even influence, the shape of the international system. In contrast, because it takes years to design and construct modern warships and aircraft, and since those platforms remain in service for decades, naval force structure and doctrine progress more slowly. So it is that in recent decades naval power and naval theory have lagged as indicators of change in the nature of power in the international system, but international law has been at the vanguard, driving those changes. For instance, these legal trends predated and catalyzed the conceptualization of the *Cooperative Strategy,* the legal and policy networks created arising in new forms of international law influenced naval strategy, rather than the other way around. The release of the *Cooperative Strategy* in 2007 reflected a shift in theoretical approach to sea power away from the concept of command of the sea, the linchpin of geostrategist Alfred Thayer Mahan, and toward the notion of constabulary sea control, which was promoted by British historian Sir Julian S. Corbett. Mahan envisioned naval forces taking command of the seas through large-scale engagements between battle fleets. For Corbett, however, naval force structure should include not only ships of the line with focused combat power but globally distributed engagement forces, such as frigates, that are capable of exercising control of the seas.

"Sea power" encompasses both naval power and maritime power. Naval power combines strategy and doctrine with warships and aircraft in order to deter maritime threats, win war at sea, and project power ashore. The more

inclusive concept of "maritime power" applies all components of diplomatic, informational, military, and economic aspects of national power in the maritime domain. The expanded notion of sea power as against purely naval power is dependent upon the regimes created by progressive maritime law. The primary beneficiaries of this phenomenon in the United States are the Coast Guard and Marine Corps, which share a history of maritime constabulary operations—positioned at the seam between peace and war and embracing the geographic dimensions of land and sea. In contrast, for decades the Navy marginalized amphibious warfare; only in the last decade has this mind-set changed. It is no coincidence, however, that while the Coast Guard and Marine Corps have become more relevant, the Navy still struggles to find its place amid a network of new regimes that enable coalition maritime constabulary operations and the building of maritime security capacity and partnership. The *Cooperative Strategy* of 2007 attempts to serve as a framework to fill this void, but problems of adapting to the new approach persist. Four years after introducing the "thousand-ship navy" concept and a year after soliciting inputs from American embassy posts, the Pentagon still has yet to implement its vision for the Global Maritime Partnership.[17] Furthermore, the new legal networks and partnerships that facilitate maritime coalitions should have been central to the *Cooperative Strategy;* instead, the document barely mentions international law, obliquely noting that "theater security cooperation" requires, among other things, "regional frameworks for improving maritime governance, and cooperation in enforcing the rule of law," at sea.[18] Although the strategy correctly suggests that "trust and cooperation cannot be surged," it fails to promote America's great strength in broadening the rule of law in the oceans. The lack of a specific reference to the global network of international laws that implicitly underlie the *Cooperative Strategy* represents a missed opportunity to play to the core U.S. strength, focus the purpose and goals of national maritime security, and reassure states skeptical of American intentions.

The emerging global maritime security regime is inclusive, multilateral, and consensual. In contrast to the disparate and competing national perspectives on international law concerning the initiation of war and the conduct of armed conflict (in Iraq beginning in 2003, in Lebanon in 2006, and in Georgia in 2008), there is great accord on the legal framework necessary for ensuring maritime security. Since the United States was the principal sponsor of the international system developed in the wake of World War II, the evolution of sea power as an outgrowth of international maritime law plays to a unique American strength. The trend converts traditional competition arising from naval power—a "struggle for power"—to a contest to interpret and shape the legal regimes of the global maritime partnership—a "struggle for law."

The United States has become the world's leader in advancing these positive relationships, which include such nonbinding political arrangements as the Proliferation Security Initiative (PSI), the Department of Energy's megaports initiative (to detect radioactive sources inbound to the United States from foreign ports), and the Department of Homeland Security's Container Security Initiative (CSI), which seeks to screen, though not necessarily inspect, every container entering the country. The United States has also been a principal proponent and organizer of multilateral binding legal instruments, including UN Security Council Resolution 1540 of 2004, which requires states to enforce effective measures against the proliferation of weapons of mass destruction (WMD), as well as several post-9/11 updates to important treaties under the rubric of the IMO.

THE EMERGING FRAMEWORK FOR MARITIME SECURITY

This narrative on the importance of international law at sea is at odds with much of the conventional wisdom that characterizes the oceans as an ungoverned legal vacuum.[19] The global order of the oceans springs from the architecture of the international law of the sea and of the IMO, and the new maritime security regimes fall within those frameworks. The 1982 Law of the Sea Convention was the first—and remains the foremost—international instrument for realizing collaborative approaches to maritime security. Attempts in 1930, 1958, and 1960 at developing a widely accepted multilateral framework on oceans law had either ended in utter failure or achieved only modest gains. In contrast, UNCLOS contributes directly to international peace and security, by replacing abundant conflicting maritime claims with universally agreed limits on coastal-state sovereignty and jurisdiction. The treaty is anchored in a set of navigational regimes that establish common expectations, delineating the rights and duties of flag, port, and coastal states. Even though some state parties occasionally propose rules that evidence unorthodox misreadings of the convention—such as China's bogus security claims in the East China and Yellow seas—UNCLOS has served as a stabilizing force, a framework that protects and promotes the principal American interest in freedom of the seas. In doing so the multilateral agreement, which now has more than 155 state parties, picked the international community out of what D. P. O'Connell once described as an "intellectual morass" in which competing opinions and views served as a substitute for law. As a result, the number of controversies in the oceans has declined.[20]

UNCLOS contains provisions relating specifically to maritime security. Article 99 pertains to trafficking in human slaves, articles 100–107 address piracy, and article 111 contains provisions for hot pursuit from the high seas into a coastal state's territorial sea. The convention also provides for the control of the

illicit traffic in narcotic drugs, in article 108, international maritime drug trafficking having become more prevalent during the decade of the treaty's negotiation. Article 110 incorporates the customary norm in international law that warships may exercise the right of "approach and visit" of merchant vessels. The convention permits a right of visit or boarding on the high seas by warships of all nations, even without the consent of the flag state, for the purpose of disrupting certain universal crimes, such as human slave trafficking.[21] Whereas the right of visit and search in the law of naval warfare has largely become an anachronism, the right of approach and visit is employed on a daily basis in maritime security operations.

The IMO, as a specialized agency of the UN recognized in the law of the sea as the "competent international organization" for the setting of worldwide shipping standards and approval of coastal-state regulations affecting international shipping, is the key institution for the development of international maritime law. With 167 state parties, the organization is consensus oriented and broadly inclusive. Since its inception under the 1948 Convention on the Inter-governmental Maritime Consultative Organization, the organization has proved remarkably effective in promoting safe, clean, and efficient shipping. There is a refreshing absence of the political posturing that too frequently marks the proceedings of some other UN agencies. The IMO member states have adopted nearly fifty treaties and hundreds of codes, guidelines, and recommendations that address nearly all aspects of shipping. These regimes are now applicable to almost 100 percent of global tonnage.[22]

Global Cargo-Chain Security

Given especially the increasing reliance on "just in time" delivery, countries have become closely bound together by maritime shipping; more than 90 percent of global trade is conducted over the sea-lanes. Ensuring maritime security requires a concerted effort among littoral and coastal states, landlocked and port states, and especially flag states, working in conjunction with international organizations and the maritime industry. Nearly every maritime security scenario involves multiple states and stakeholders—all with an interest in collaborative decision making. A vessel hijacked by pirates or engaged in smuggling most likely is registered in one nation (such as Greece), owned by a corporation located in another nation (perhaps South Korea), and operated by a crew comprising nationals of several additional countries (say, the Philippines or Pakistan). Furthermore, the vessel may well be transporting either containerized cargo or bulk commodities owned by companies in one or more additional states, like Singapore. Finally, port officials or naval forces from several nations may become involved in intercepting the ship, and each is likely to operate

within its own rules of law enforcement and the use of force. Consequently, international law constitutes the "language and logic" for facilitating cooperation among these stakeholders.[23]

Specifically, the 1974 SOLAS Convention is the cornerstone for cooperation regarding merchant fleet security. The treaty applies to 98 percent of world shipping, and it reflects comprehensive safety standards for construction, design, equipment, and manning of vessels. Ship subdivision and stability, fire protection, lifesaving appliances and arrangements, radio communications, safety of navigation, carriage of cargoes and dangerous goods, and safe management practices are all part of the package. In 2002, in the wake of the attacks of 9/11 the IMO convened a diplomatic conference to adopt amendments to Chapter XI of SOLAS, called the International Ship and Port Facility (ISPS) Code. The ISPS Code launched a worldwide public-private partnership for maritime security, designed to enable national governments to develop better oversight of their commercial shipping and port facility industries. The code contains mandatory requirements for governments, port authorities, and shipping companies, as well as a separate (nonmandatory) set of guidelines. In force for 158 states, accounting for over 99 percent of the world's merchant-fleet gross tonnage, the ISPS Code provides a standardized framework for evaluating risk. By assisting governments in synchronizing changes in the threat level with security measures, it reduces the vulnerability of assets and infrastructure.

Another set of SOLAS amendments has also enhanced the security of the global cargo chain by bringing greater transparency to the maritime domain. Using technology to pinpoint the location of merchant shipping, these amendments provide commercial fleet, port, coastal-state, and flag-state authorities with a greater level of "maritime domain awareness." Situational awareness depends on the ability to monitor activities so that trends can be identified and irregularities distinguished. Data must be collected, fused, and analyzed; computer data-integration and analysis algorithms can assist in handling the disparate data streams. By understanding where legitimate shipping is located, states can focus scarce resources on anomalous contacts and sort civil commerce from suspicious activity.

Two systems for collecting and sharing information are attached to the SOLAS Convention—the Automatic Identification System (AIS) and the emerging, satellite-based Long Range Identification and Tracking (LRIT) system. AIS was originally designed in the 1990s to make transit through the Panama Canal safer. Vessels equipped with AIS continuously transmit size and heading data; because of the signal's limited range and the system's open-access architecture, however, AIS has substantial limitations. By way of developing a next-generation approach to maritime situational awareness, in May 2006 the

IMO adopted LRIT as an additional amendment to SOLAS Chapter V. More secure than AIS and favored by the U.S. Coast Guard, LRIT is a global, satellite-based vessel-identification system. When fully operational in 2009, LRIT will make information on vessel location and identity available worldwide. Flag and port states will be able to collect information on vessels flying their flags or bound to their ports, and coastal states on vessels passing within a thousand nautical miles of their coastlines. Vessels will transmit position reports periodically to cooperating national, regional, or international LRIT data centers. The new system will be mandatory for ships three hundred gross tons or greater making international voyages.

As early as 2002, Admiral Vern Clark, U.S. Navy, then Chief of Naval Operations, called for creation of a "maritime NORAD," a maritime analogue of the U.S. Federal Aviation Administration or an international Identification Friend or Foe (IFF) signal, by which states would carefully plot and track every vessel. After all, it was reasoned, ships are both slower and larger than aircraft; if aircraft can be tracked in real time, why not vessels? But maritime situational awareness is not an unmitigated public good. Both coastal states and rogue nonstate maritime groups, such as terrorists or pirates, could misuse data; coastal states could use the information to impede the exercise of freedom of navigation and overflight; and international criminal organizations might employ it to attack or disrupt shipping. In November 2008, for example, Somali pirates reportedly used AIS to locate and hijack the thousand-foot-long supertanker *Sirius Star,* which was passing 450 miles off the coast of Kenya.

Counterterrorism and Counterproliferation at Sea

Since the destroyer USS *Cole* (DDG 67) was attacked in Yemen in 2000, remarkable maritime terrorist incidents have included the attack on the French tanker *Limburg* off the coast of Yemen in 2002 and the deadly bombing in the Philippines of *Superferry 14* in 2004 by the Abu Sayyaf group. These attacks and others illustrate the vulnerability in the maritime domain; in addition, the development of new rules to counter terrorism and WMD proliferation at sea has been a centerpiece of the emerging international law of maritime security. Concern over the threat of catastrophic terrorist attack from the sea galvanized efforts to strengthen port and vessel security after 9/11. In no other area of international law have nations so effectively and seamlessly combined elements of the law of armed conflict and law enforcement into a unified approach.

One of the first efforts to develop new norms against proliferation of WMD was the Proliferation Security Initiative (PSI). Frustrated by the inability of the United States, the United Kingdom, and Spain to seize lawfully the MV *So San* in December 2002, a group of nations collaborated to form PSI. The *So San* was

permitted to continue into port to unload its dangerous consignment (Scud missiles intended for North Korea), but the effect throughout the maritime security community was indelible—and work began immediately on a new initiative to tighten nonproliferation rules.[24]

Speaking in Kraków, Poland, in May 2003, President George W. Bush unveiled PSI as a partnership activity to counter proliferation and trafficking of WMD in accordance with international law and under the guidance of a set of interdiction principles. Originally eleven core members launched the initiative. More than ninety states have joined the informal network to work together in a more coordinated and effective manner, and PSI was endorsed by the UN Secretary-General.[25] Participants include some of the nations with the largest shipping registries in the world, such as Panama, Liberia, and Malta. Nine states have signed PSI ship-boarding agreements with the United States.[26] The agreements do not constitute authority by one state to board the vessel of the other, but they offer a mechanism for expedited review of requests to board, and some provide for presumed consent if a request is not denied by the flag state within a few hours.

Only months after the initiative began, British and American intelligence services discovered that the German-registered vessel *BBC China* was transporting uranium-enrichment equipment from Malaysia to Libya, via Dubai. With the consent of the German government the vessel was diverted to the Italian port of Taranto, where Italian authorities searched the vessel and seized centrifuge materials, which were not listed on the cargo manifest. Two months later Libya announced that it was abandoning its ambition to develop a uranium-enrichment capability.[27] The *BBC China* interdiction has been followed by additional PSI successes, conducted quietly to avoid attention.[28] Efforts by Iran to procure goods for its nuclear program have been disrupted, and a country in another region of the world has been prevented from receiving equipment for a ballistic-missile program.[29]

In separate European regional initiatives, the European Union (EU) and the North Atlantic Treaty Organization (NATO) have taken action against the maritime terrorist threat. Following 9/11, NATO embarked on Operation ACTIVE ENDEAVOUR (OAE) in October 2001, the only operation ever conducted by the organization under the mutual-defense clause of article 5 of the NATO charter.[30] Under OAE naval forces have been patrolling the Mediterranean Sea, monitoring shipping and conducting escort operations and boardings. Warships from Russia and Ukraine also have participated. At the Thessaloníki European Council in June 2003, the EU began to establish effective policies for the disruption of international shipments of WMD and related materials. In August 2004 the EU issued a strategy against WMD proliferation.[31] The cornerstone of the EU's approach to

combating WMD is effective multilateralism, which means that international regimes should be able to detect violations and enforce prohibitions. The EU also advocates strengthening the role of the UN Security Council as the final arbiter on the consequences of noncompliance.

Seven months after the introduction of PSI, the Security Council adopted a historic resolution under Chapter VII of the UN Charter to address terrorism and the maritime transport of WMD. Unanimously adopted in April 2004, Resolution 1540 is binding on all nations under article 49 of the UN Charter. The resolution asserts that proliferation of WMD to nonstate actors constitutes a threat to international peace and security within the meaning of article 39 of the UN Charter and promulgates new rules to address that threat.[32] The resolution calls on all states to take cooperative action to prevent trafficking in WMD, offering a foundation for counterproliferation law. That WMD proliferation poses a threat to international peace and security was reiterated in Security Council Resolution 1718, which was directed at North Korea following Pyongyang's nuclear test of October 2006.[33] The resolution also called upon all states to prevent North Korea from obtaining material that would support its nuclear, WMD, or missile programs, or even substantially replenishing the country's stock of conventional weaponry.

As a complement to Resolution 1540 and reflecting the philosophy of PSI, the International Maritime Organization adopted in 2005 two major protocols that collectively represent a breakthrough in maritime security cooperation. The year after the 1985 hijacking by Palestinian terrorists of the Italian-flag cruise ship *Achille Lauro* and the brutal murder of a disabled American passenger, Leon Klinghoffer, Austria, Egypt, and Italy proposed that the IMO prepare a convention on crimes against the safety of maritime navigation. The goal was a comprehensive set of rules to ensure cooperation among states for the suppression of unlawful acts at sea. The IMO promptly drafted a treaty, and in 1988 a conference in Rome adopted the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA).[34] The prohibited acts include seizing "control over a ship by force or threat thereof or any other form of intimidation" (article 3), acts of violence against persons on board ships, and the placing of devices on board a ship that are likely to destroy or damage it. The convention obliges contracting governments either to extradite or prosecute offenders.

Today 149 states are party to the SUA Convention, and these states represent about 92 percent of the world's merchant shipping tonnage. In 2005 a diplomatic conference at the IMO adopted two protocols to the convention, one on strengthening the rules for the safety of vessels, the other on the safety of fixed platforms on the continental shelf. The 2005 protocols add several new offenses, including

attempts to intimidate a population or compel a government or an international organization. Specifically, the 2005 protocols criminalize such perilous activities as using any explosive, radioactive material, or a biological, chemical, or nuclear weapon on or against a ship; knowingly transporting such material on a ship; or operating a ship in a manner that causes death or serious injury or damage. The protocols also prohibit the transport of "dual use" or source materials that might find their way into chemical, biological, or nuclear weapons.

With PSI, Resolution 1540, and the amended SUA Convention, nations are establishing a global, and increasingly effective, network of legal and policy authorities to synchronize intelligence and operations against terrorists and WMD in the maritime domain. Some believe the SUA protocols may end up eclipsing PSI, notwithstanding the value of an interlocking network of formal and informal arrangements. First, the era of "coalitions of the willing" may be coming to a close, the concept having been badly bruised by the experience of Iraq. For all the groundbreaking (and frankly astonishing) successes of PSI, some countries are wary of its informal nature and process. Second, shipping commerce is a global industry, one that relies on a common framework of international conventions and treaties; the industry can operate efficiently only when regulations applicable to a particular ship are identical at the port of departure, on the high seas, and at the port of arrival. Since PSI focuses on enlarging national authorities rather than global rules, it is more likely to create inadvertently a web of inconsistent national laws than is the standardized international legal regime of SUA. The shipping industry is hopeful that the amended SUA 2005 will attract widespread support and enter into force quickly.

Counterpiracy

Maritime piracy has returned as a major security issue only in the last decade. In 2008 maritime piracy doubled in the Horn of Africa, with Somali pirates hijacking more than forty vessels and taking nearly nine hundred seafarers hostage. Piratical attacks in the Gulf of Aden expose civil shipping to dangers not experienced since the Iran-Iraq "tanker war" of the 1980s. The law of the sea defines maritime piracy as an illegal act of violence or detention committed for private ends; on the high seas, anywhere else outside the jurisdiction of a state, and in such ungoverned areas as Somalia's territorial sea, any nation may take action against piracy. Customary international law provides, in fact, that any nation may assert jurisdiction over piracy, including the state of registry or flag state of the attacked vessel, nations whose citizens are victims, and in some cases coastal or port states.

In 1986 the Maritime Safety Committee of the IMO adopted Circular 443 promulgating measures to prevent unlawful acts against passengers and crew on

board ships.[35] The circular applied to passenger ships on voyages of twenty-four hours or more and to port facilities that service those vessels. After a minor surge in piracy in the early 1990s, the IMO released two circulars, 622 and 623, to counter the threat.[36] The first detailed recommendations to governments for preventing and suppressing piracy, and the second offered guidance to the maritime commercial sector. In 1999 both circulars were revised.[37] The revision to Circular 622 sets forth investigative protocols for use after a pirate attack, as well as a draft regional agreement on counterpiracy.[38] The revised Circular 623 lists measures by which the shipping industry can reduce vulnerability to piracy, such as enhanced lighting and alarms.[39] In 2008 Denmark proposed that both circulars be reviewed and again updated in light of the recent attacks in the Horn of Africa, and that review is under way.

In 2008, after prompting from Mr. Efthimios E. Mitropoulos, the Secretary-General of the IMO, the Security Council took action against piracy in the Horn of Africa by adopting four key resolutions under Chapter VII, authorizing "all necessary means." The resolutions enhance counterpiracy collaboration among nations, strengthen operational capabilities, remove sanctuaries in Somalia, and support criminal prosecution.

Resolution 1816 of 2 June allowed naval forces cooperating with the Transitional Federal Government of Somalia to pursue pirates into Somalia's ungoverned territorial waters. Resolution 1838, adopted in October, expressed concern over the threat of piracy to World Food Program shipments to Somalia, called upon states to deploy naval vessels and aircraft to the Gulf of Aden and surrounding waters, and affirmed that UNCLOS embodies the rules applicable to countering piracy. Resolution 1846 of 2 December 2008 suggested that the 1988 SUA Convention could be applied in the extradition and prosecution of pirates. Two weeks later, Resolution 1851 authorized states to take action against safe havens used by pirates ashore in Somalia (an authority likely to be implemented only cautiously). It also invited states with maritime forces in the area and regional states to conclude arrangements to embark local law-enforcement officials on board their warships patrolling the area. Finally, Resolution 1851 encouraged formation of a multinational Contact Group on Piracy off the Coast of Somalia. More than thirty countries and organizations, including the EU, NATO, and the African Union, responded, forming working groups to develop collective action for various aspects of the effort against Somali piracy.

Following the adoption of these four UN Security Council resolutions, the United Kingdom and the United States signed counterpiracy cooperation agreements with Kenya, and the United States made the first transfer of captured pirate suspects to Kenya in March 2009.

Based on language developed at an IMO meeting in Dar es Salaam, Tanzania, in April 2008, eight coastal states situated on the Gulf of Aden, the Red Sea, and the western Indian Ocean, plus Ethiopia, met in January 2009 and concluded the Djibouti Code of Conduct to combat acts of piracy against ships. The agreement is based on a sixteen-nation counterpiracy treaty known as the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP), which has been remarkably successful in reducing piracy attacks in East Asia. Just as ReCAAP was the first Asian agreement dedicated to counterpiracy, the Djibouti Code of Conduct is the first such regional agreement between Arab and African countries, although the Djibouti accord is not legally binding.

Counternarcotics

Decades before UNCLOS entered into force, states were negotiating in earnest to counter maritime drug trafficking. These efforts represent windows into early instances of effective collaboration in the maritime domain. Today, internationally organized criminals operate illicit maritime networks for drug trafficking, and the ocean is the preferred medium for moving multi-ton loads from producers in the Andean Ridge and South Asia to black markets in Europe and North America. Drug traffickers exploit related illicit networks to facilitate additional crimes, including money laundering, transnational corruption, human trafficking, and terrorism.

Three widely accepted international treaties, which enjoy near-universal acceptance, call on states to cooperate in counterdrug activities and operations. The Single Convention on Narcotic Drugs (1961) has been in force since 1964 and has 180 state parties; the Convention on Psychotropic Substances (1971) entered into force in 1976 and has 175 state parties; and the UN Convention on Illicit Traffic of Narcotics and Psychotropic Drugs (1988) has been in force since 1990, with 170 state parties. These treaties are mutually supportive and complementary. An important purpose of the first two was to codify internationally applicable control measures in order to ensure the availability of lawful narcotic drugs and psychotropic substances for medical and scientific purposes while preventing their diversion into the black market. The third treaty regulates precursor chemicals used in manufacturing drugs controlled by the Single Convention and the Convention on Psychotropic Substances, and it also strengthens provisions against money laundering and other drug-related crimes.

States often fulfill their obligations under the multilateral treaties through bilateral or regional maritime counterdrug agreements. The United States has negotiated twenty-six such bilateral agreements, mostly with Caribbean states. Under these arrangements, states permit other nations to operate in waters

under their jurisdictions in accordance with preplanned actions or responses. The agreements often define specific parameters, such as geographical areas, time periods, frequency, or potential targets or suspects. Operational cooperation may include exchange of information or cooperative patrolling or enforcement actions. Typically state parties prescribe procedures for designating on-scene commanders and mutually acceptable rules of engagement for maritime counterdrug operations. States also may reach agreement on whether a party may board vessels of another party, and if so, under what circumstances. The agreements accelerate real-time decision making, allowing determinations on boarding and seizure to be made more quickly.

NEW NOTIONS OF SEA POWER

Threats to maritime security flourish at the "seams" of globalization, where jurisdiction can be unclear and the inherent isolation of vessels and nations can be exploited. International law has become the most effective tool for closing these seams. The emerging international rules have had a transformative effect upon how maritime security is thought about and implemented.

The new international maritime law increases coordination among concerned partners and improves the readiness of all states to act effectively. The development of the law is regional and global, bilateral and multilateral. The sweeping nature of this development—in its application to all oceans, narrow seas, and coastal areas; the depth of the measures for which it provides; and the self-perpetuating nature of the legal and policy networks that propel them—has given law a defining role with respect to notions of sea power. Collectively, the initiatives described here have completely renovated international maritime law and now presage a new, cooperative approach to sea power.

The widespread consensus throughout the world regarding maritime security has been notably absent in other security contexts, such as the debate over whether counterterrorism operations on land constitute law enforcement or warfare. The principal manifestation of this dispute is the debate over whether captured terrorists should be treated as criminals or some stripe of unlawful combatant under the laws of war. The United States has been incapable of dealing with the issue, dissatisfied with the ability of the criminal-law model to ensure security but uncomfortable with the application of the law of armed conflict. Even the nation's highest court has been unable to resolve the matter clearly.[40] Meanwhile, maritime international law has moved purposefully and confidently toward a middle path, recognizing that though maritime law arises in a peacetime framework it must be responsive to conventional, asymmetric, and hybrid threats at sea. Informed by centuries of progress and shared

experience in the struggle with piracy, maritime international law quite comfortably straddles the divide between criminal law and the law of war.

Many misunderstand the interface between international law and domestic authorities. This intersection is the sphere of foreign-relations law, and it is the critical bridge between international commitments and treaties and their implementation by individual states. Most international agreements are not self-executing; in the United States and many other countries, international obligations must be implemented by domestic legislation to be given effect. The nuances of this interface have real consequences for naval forces. The fact that an activity like piracy is a universal crime in customary international law does not mean a state can take enforcement action if it has not criminalized piracy under its domestic law. Foreign-relations law fuses sea power and maritime-security operations to international legal regimes.

The U.S. Coast Guard has been much more sensitive to recognize and capitalize on this new state of affairs than the Navy, perhaps because it is simultaneously a law-enforcement agency and an armed force, and because it leads the American delegation to the IMO. The Coast Guard takes a holistic "systems" view of maritime governance, in terms of regimes, awareness, and operations; the Navy's approach to these issues is not as well developed. For example, the Commandant of the Coast Guard has championed the SOLAS amendments that will create the LRIT system; for their part, few naval officers are familiar with the system, though it is the future of unclassified information sharing for maritime domain awareness. Moreover, international maritime law is too often viewed within the Navy through an outdated prism, particularly by officers who rose during the Cold War. That is, the Navy tends to see international maritime law as comprising the 1982 Law of the Sea Convention (which reflects the core American interest in freedom of navigation) and the law of naval warfare (which has enjoyed only sporadic relevance since World War II). The new treaties and partnerships are unfamiliar to many naval officers.

But this will change as these initiatives continue to reconfigure sea power itself. Consequently it is not surprising (but unfortunate) that the *Cooperative Strategy* failed to promote international law of the sea as the organizing principle and principal goal of U.S. maritime strategy. This glaring omission has been noted by numerous friends and allies, who time and again reminded the United States of the centrality of international law in their responses to the original thousand-ship-navy concept. Writing separately, naval commanders from France, Ghana, India, Portugal, and Spain all made reference to the importance of international maritime law in their comments on the thousand-ship navy published in 2006 by the *Proceedings* of the U.S. Naval Institute.[41] A year later, many of the same chiefs of service were asked to respond to Admiral Michael G.

Mullen's plan for a new U.S. maritime strategy. Once again, international law was a prominent feature of their replies; the leaders of the naval forces of Brazil, Peru, Portugal, Colombia, Uruguay, Lebanon, and Spain urged the United States to ensure that maritime security is rooted in multilateral legal frameworks.[42] It is especially important that the vigorous expansion of maritime partnership integration propelled by international law be maintained. The maritime domain awareness provisions of the SOLAS Convention, the counterproliferation and counterterrorism elements of the SUA 2005 protocols, and PSI, with its informal nature, and Security Council action against piracy, constitute the greatest package of multilateral maritime-security commitments since the interwar period of the 1930s. The United States led each of these efforts, but there is a widespread perception that the American "brand" has suffered since and that the diplomatic influence of its friends and allies in Europe has diminished.[43] Meanwhile, that of China and Russia is expanding. The upshot is a degree of doubt about the ability of the West to shape the future direction of international maritime law toward a shared vision of the rule of law at sea. This means that we should be prepared to make even greater investments in cooperation, and the development of international maritime law and institutions, to realize the goals of the *Cooperative Strategy*.

NOTES

1. "Agreement with the United States on the Prevention of Incidents on or over the High Seas, May 25, 1972," 23 *UST* 1168, *TIAS* no. 7379, 852 *UNTS* 151, as amended by the Protocol of May 22, 1973, 24 *UST* 1063, *TIAS* no. 7624.

2. D. P. O'Connell, *The Influence of Law on Sea Power* (Annapolis, Md.: Naval Institute Press, 1975).

3. *A Cooperative Strategy for 21st Century Seapower,* October 2007. The strategy is available at www.navy.mil/maritime/MaritimeStrategy.pdf and is reprinted in *Naval War College Review* 61, no. 1 (Winter 2008), pp. 7–19.

4. Walter Russell Mead, *Special Providence: American Foreign Policy and How It Changed the World* (New York: Routledge, 2002), p. xvi.

5. "Declaration Respecting Maritime Law, April 16, 1856," reprinted in *American Journal of International Law* 1, Supp. P. 787 (1907).

6. "Declaration of London Concerning the Laws of Naval War, February 26, 1909," reprinted in Sir Thomas Barclay, *Law and Usage of War* (Boston: Houghton Mifflin, 1914), p. 196.

7. "Convention (No. III) for the Adaptation to Maritime Warfare of the Principles of the Geneva Convention of 22 August 1864, July 29, 1899," 32 *Stat.* 1827, 1 Bevans 263.

8. "Additional Articles Relating to the Condition of the Wounded in War."

9. "Convention [No. VIII] Relative to the Laying of Automatic Submarine Contact Mines," 18 October 1907, 36 *Stat.* 2332, 1 Bevans 669.

10. "Convention (No. X) for the Adaptation to Maritime Warfare of the Principles of the Geneva Convention," 15 *LNTS* 340.

11. "Helsinki Principles on the Law of Maritime Neutrality," *International Law Reports* 68 (1998), p. 497.

12. "London Procès-Verbal Relating to the Rules of Submarine Warfare Set Forth in Part IV of

the Treaty of London of 22 April 1930, November 6, 1936," 173 *LNTS* 353, 3 Bevans 298.

13. "Convention (II) for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea, August 12, 1949."

14. "Treaty between the United States of America, the British Empire, France, Italy, and Japan, Limiting Naval Armament, Feb. 6, 1922," 43 *Stat.* 1655, 2 Bevans 35. The treaty—known as the Five-Power Treaty, or the Washington Treaty—limited U.S., British, and Japanese battleship strength in a 5:5:3 ratio. For an analysis, see Erik Goldstein and John Maurer, eds., *The Washington Naval Conference 1921–22: Naval Rivalry, East Asian Stability and the Road to Pearl Harbor* (Portland, Ore.: Frank Cass, 1994).

15. At the time the agreement was signed, and to the utter disbelief of Churchill, Germany was finishing three pocket battleships that displaced 12,000–12,500 tons—that is, 20–25 percent over treaty weight. German violations went unchallenged, culminating in the construction of five heavy cruisers displacing 14,500 tons, surpassing treaty limits by 45 percent. OASD, *Naval Arms Control Record 1919–1939.*

16. Agreement, with annex, signed at London on 5 August 1944, entered into force 24 May 1945, and terminated 2 March 1946.

17. For the "thousand-ship navy," see John G. Morgan and Charles W. Martoglio, "The 1,000-Ship Navy: Global Maritime Network," U.S. Naval Institute *Proceedings* (November 2005), p. 14; and Ronald E. Ratcliff, "Building Partners' Capacity: The Thousand-Ship Navy," *Naval War College Review* 60, no. 4 (Autumn 2007), pp. 46–58.

18. *Cooperative Strategy,* p. 10 (as posted at www.navy.mil).

19. William Langewiesche, *The Outlaw Sea: A World of Freedom, Chaos, and Crime* (New York: North Point, 2004), pp. 3–4.

20. O'Connell, *Influence of Law on Sea Power,* p. 13.

21. The peacetime right of approach and visit can be contrasted with the wartime right of belligerent right of visit and search of neutral vessels in order to search for contraband or to determine the enemy character of the ship or its cargo under the law of neutrality, an offshoot of the law of armed conflict. Louise Doswald-Beck, ed., *San Remo Manual on the Law Applicable to Armed Conflict at Sea* (New York: Cambridge Univ. Press, 1995), pp. 31–32, paras. 118–21.

22. The standard international measurement of a ship's size under the Universal Tonnage Measurement System (UMS), defined by the 1969 Tonnage Regulations, is the "gross ton" (GT). The "ton" in gross tonnage is not a measure of weight but of volume (2.78 cubic meters). Volume in GT is a useful reference for only certain types of vessels, such as conventional cargo ships and passenger ships. Certain other ships, including tankers and bulk carriers, are measured by "deadweight tonnage" (dwt), which represents lifting capacity.

23. Michael D. Carsten, preface, in *International Law and Military Operations,* ed. Carsten, International Law Studies, vol. 84 (Newport, R.I.: Naval War College, 2008), p. xii.

24. U.S. State Dept., *Digest of United States Practice in International Law 2002* (Washington, D.C.: 2003), pp. 1052–57; David E. Sanger and Thom Shanker, "Reluctant U.S. Gives Assent for Missiles to Go to Yemen," *New York Times,* 12 December 2002, p. A1.

25. *The UN Secretary-General's High Level Panel on Threats, Challenges and Change—Final Report: A More Secure World: Our Shared Responsibility,* UN Doc. A/59/565 (New York: 1 December 2004), p. 45, para. 132.

26. The nine nations are Bahamas, Belize, Croatia, Cyprus, Liberia, Malta, Marshall Islands, Mongolia, and Panama.

27. Robin Wright, "Ship Incident May Have Swayed Libya," *Washington Post,* 1 January 2004, p. 18.

28. "State's Joseph Urges 'Diplomacy of Action' against WMD Threat, in Singapore, Outlines U.S. Counterproliferation Strategy, Joint Efforts," 17 August 2005, America.gov. Robert Joseph was Under Secretary of State for Arms Control and International Security.

29. Ibid.

30. "The North Atlantic Treaty," 34 *UNTS* 243, 4 April 1949, entered into force 24 August 1949.

31. *EU Strategy against the Proliferation of Weapons of Mass Destruction* (Brussels: August 2004), available at trade.ec.europa.eu/.

32. UN Doc. S/Res/1540 (2004).

33. UN Doc. S/Res/1718 (2006).

34. "United Nations Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation, 1988," 1678 *UNTS* 221, 27 *ILM* 668 (1988), entered into force 1 March 1992.

35. *Measures to Prevent Unlawful Acts against Passengers and Crew on Board Ships,* IMO Doc. MSC/Circ. 443 (London: 26 September 1986), para. 3.3.

36. *Recommendations to Governments for Preventing and Suppressing Piracy and Armed Robbery against Ships,* IMO Doc. MSC/Circ. 622 (London: n.d.); and *Guidance to Shipowners and Ship Operators, Shipmasters and Crews on Preventing and Suppressing Acts of Piracy Armed Robbery against Ships,* MSC/Circ. 623 (London: n.d.).

37. IMO Doc. MSC/Circ. 622/Rev. 1, 16 June 1999; MSC/Circ. 623/Rev. 1, 29 June 1999. Circular 622 was revised based upon recommendations that came out of regional seminars in Brazil and Singapore in 1998.

38. IMO Doc. MSC/Circ. 622/Rev. 1, paras. 3–15 (protective measures) and paras. 16–20 (investigative protocols). Appendix 5 sets out procedures for boarding and search of suspect vessels, criminal enforcement, and choice of jurisdiction.

39. Circular 623 has since undergone Revision 2 (6 October 2001) and Revision 3 (7 October 2001).

40. See, e.g., *Hamdi v. Rumsfeld,* 542 U.S. 507 (2004), in which the Court recognized the power of the government to detain unlawful combatants but ruled that detainees who are U.S. citizens must have the ability to challenge their detentions before an impartial judge; *Rasul v. Bush,* 542 U.S. 466 (2004), a decision establishing that the U.S. court system has the authority to decide whether foreign nationals (non-U.S. citizens) held in Guantanamo Bay were wrongfully imprisoned; and *Boumediene v. Bush,* 553 U.S. __, 128 S.Ct. 2229 (2008), challenging the legality of Boumediene's detention at the Guantanamo Bay military base as well as the constitutionality of the Military Commissions Act of 2006.

41. "The Commanders Respond," U.S. Naval Institute *Proceedings* (March 2006), p. 34. Twenty-five chiefs of navies were asked to offer their views on the nascent thousand-ship-navy concept.

42. "The Commanders Respond," U.S. Naval Institute *Proceedings* (March 2007), p. 14. See also Paul D. Taylor, ed., *Perspectives on Maritime Strategy: Essays from the Americas,* Newport Paper 31 (Newport, R.I.: Naval War College Press, 2008).

43. Richard Gowan and Franziska Brantner, *A Global Force for Human Rights? An Audit of European Power at the UN* (London: European Council on Foreign Relations, September 2008), p. 3.

MARITIME DOMAIN AWARENESS

Myths and Realities

Commander Steven C. Boraz, U.S. Navy

> *Maritime Domain Awareness is where it all begins. We cannot conduct the operations that we must if we don't have a good sense of what's out there, moving on, above or under the sea.*
>
> ADMIRAL GARY ROUGHEAD, IN *RHUMB LINES,* 20 AUGUST 2007

It was not long after the attacks of September 11th that government officials began discussing other avenues that terrorists might use to attack American citizens, particularly in the maritime domain. In a speech delivered in January 2002, President George W. Bush noted, "The heart of the Maritime Domain Awareness program is accurate information, intelligence, surveillance, and reconnaissance of all vessels, cargo, and people extending well beyond our traditional maritime boundaries."[1] By November 2002 Congress had passed the Maritime Transportation Security Act of 2002.[2] The National Security Council and the president continued to explore issues surrounding the safety and security of the U.S. maritime environs. In December 2004, the president signed National Security Presidential Directive 41/Homeland Security Presidential Directive 13, which established policy guidelines. It also directed the secretaries of Homeland Security and Defense to lead the federal effort in developing a comprehensive national strategy that would better integrate and synchronize existing department-level strategies and ensure their effective and efficient implementation. The interagency Maritime Security Policy Coordinating Committee was established to serve as the primary forum for coordinating government maritime security policies; it delivered a National Strategy for Maritime Security in September 2005.[3] Eight additional plans, including the National Plan to Achieve Maritime Domain Awareness, buttress the national strategy.[4]

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In response, the departments of Homeland Security, Transportation, and Defense identified executive agents to lead their efforts toward achieving maritime domain awareness (MDA): the Coast Guard, the Maritime Administration, and the Navy, respectively.

The Coast Guard has recently established the Nationwide Automatic Identification System, a robust command-and-control network designed to improve maritime safety and security at the nation's highest-priority ports and coastal zones. Customs and Border Protection, another Homeland Security agency, has the Container Security Initiative and the Customs-Trade Partnership against Terrorism (C-TPAT).[5]

The Maritime Administration helped develop the Maritime Safety and Security Information System (MSSIS), participates in the MDA executive steering committee, and is tasked by Congress to be the "Information Advocate of the Marine Transportation System."[6]

The Navy, for its part, has pushed the concept of the "thousand-ship navy";[7] at least one senior advocate has declared that "it is virtually indisputable that MDA is the enabling mission supporting Sea Strike, Sea Shield, and Sea Basing, and is a primary focus of what FORCEnet will ultimately do."[8] MDA is a key component in the Navy's new maritime strategy, *A Cooperative Strategy for 21st Century Seapower,* which notes, "To be effective, there must be a significantly increased commitment to advance *maritime domain awareness* (MDA). . . . Maritime forces will contribute to enhance information sharing, underpinning and energizing our capability to neutralize threats to our Nation as far from our shores as possible."[9]

The Secretary of the Navy has deemed MDA important enough to direct the service to develop a "cross-functional team" from the operational staff and acquisition communities to implement an initial MDA capability in the Central and Pacific Command areas of responsibility and on the west coast of the United States by August 2008; the secretary committed more than $300 million to doing so.[10] There are literally hundreds more public and commercial MDA-related activities being developed.

MDA is also a contemporary debate topic. This journal, for example, has provided ample space to the maritime strategy and MDA, and it routinely publishes articles regarding maritime security.[11] Also, maritime security figures prominently in literature issued by think tanks.[12]

Even without such extensive and varied activity, it would be clear that MDA is a cornerstone of national security, as more than 80 percent of the world's trade travels by water.[13] Nonetheless, operators, acquisition professionals, defense contractors, and policy makers still find maritime domain awareness a difficult idea. This is the case because of widespread misperceptions about what it takes

to achieve MDA, who should implement it, where, and how. This article is intended to address and clear away some of those stumbling blocks.

Myth: "The Navy Has Always 'Done' MDA"
The reality is that navies of the world, both ancient and modern, have always gathered data on their maritime environments to gain situational awareness that their missions required, whether basic navigation or finding an enemy armada and stopping it before it could attack. Many argue that there has simply been a change in the details; in fact, however, that would be akin to saying humanity had been "doing" physics before Isaac Newton—the context of the MDA we've been "doing" and that of the MDA we need to achieve are vastly different. This is true for three reasons.

First, the scale of "doing" MDA has dramatically expanded; massive amounts of data on all aspects of maritime activity must be collected, then cross-referenced, "fused" (generally speaking, correlated across sources), and analyzed, in order to detect anomalies that may indicate threat-related behavior.[14] The computing power required is inordinately greater than the capacity of the "grey matter" of those keeping watch. For example, during the Cold War probably fewer than a thousand ships were tracked globally at any one time. Today, hundreds of thousands of ships need to be tracked *and* the links among their cargoes, crews, and financial transactions sorted out. The November 2008 seaborne attacks on Mumbai represent a vivid case in point. The attackers hijacked an Indian fishing trawler, the *Kuber,* which routinely traveled to Mumbai from a port in Gujarat State near the India-Pakistan border. Approximately 950 trawlers, carrying eight thousand fishermen, come to Mumbai every year, over an eight-month period beginning in August.[15] Making the connections between these trawlers and the terrorists who may take advantage of such logistics networks requires much more than "what we've always been doing."

Second, the U.S. Navy has let the arts of understanding regional maritime activity and determining trends therein atrophy. For years, this was a mission assigned to Fleet Ocean Surveillance Information Facilities and Centers (FOSIFs and FOSICs). Staffed with naval intelligence professionals, "operators," and civilian analysts, they provided in-depth analysis of the activities of the navies (and some air forces) in all the maritime environs in which the U.S. Navy operated.[16] In the restructuring that resulted from the demise of the Soviet Union and a new U.S. emphasis on joint structures, the missions that FOSIFs and FOSICs had once met were transferred to Joint Intelligence Centers (JICs). Whether because the maritime environment has changed so drastically—that is, no Soviet navy—or because, as some contend, the centers simply ignore maritime issues and focus their intelligence support on combatant commanders (i.e.,

of unified, or interservice, regional or functional commands) rather than operational forces, is immaterial. The result is less support to naval forces. The emerging "Maritime Headquarters with Maritime Operations Centers" (MHQ/MOC) concept may fill the gap. MHQ/MOC envisions a global network of Navy-maritime organizations in support of national requirements.[17] The initial plan establishes MHQs for each of the "numbered fleets" (e.g., the Seventh Fleet in the western Pacific Ocean, the Sixth Fleet in the Mediterranean, etc.). A "concept of operations" argues:

> A key element of both homeland defense and maritime security overseas is achieving and maintaining global maritime intelligence integration (GMII) and maritime domain awareness (MDA), which will require integrating various local and regional estimates within a global context. Maritime forces are a key element in this layered defense of national interests, both in the forward regions and in the approaches to the continental United States, where the objective is "to detect, deter, and, if necessary, defeat threats en route—before they reach the United States."[18]

Applied regional MDA expertise, then, is urgently needed. Imagine, in a war-fighting context, having to determine the intention of a particular merchant ship for the commander of the Seventh Fleet, or of the entire Pacific Fleet, and "turning on the MDA switch" to do so—only to find the circuit not connected. When the Soviet navy was at sea, teams kept checklists on its specific activities, past and present; they knew what each one meant and had a very good idea as to what would follow. Today, in contrast, the U.S. Navy does not have the intelligence, operational, intellectual, or technical capacity to support MDA-related missions at the operational level of war. Part of the shortfall is being addressed by new programs, as well as by the reestablishment of the Advanced Maritime Operational Intelligence Course at the Center for Naval Intelligence in Dam Neck, Virginia, but these very initiatives are evidence that the gap exists.

Third, the way the Navy views commercial merchant traffic (traditionally color coded as "white") has changed. White shipping used to be a navigational and watch-keeping problem—something not to collide with or at which not to direct missiles. Now it is a potential threat as evinced by the al-Qaʿida attacks on the USS *Cole* in 2000 and the crude-oil carrier M/V *Limburg* in 2002, the Mumbai attacks, and numerous acts of piracy off the Horn of Africa, in the Malacca Strait, and elsewhere.

Myth: "MDA Is All about 'White' Shipping"

In reality, maritime domain awareness is about considerably more than white shipping. As we have seen, it puts white shipping in an entirely different light; however, MDA is "the effective understanding of anything associated with the

global maritime domain that could impact the *security, safety, economy, or environment* of the United States."[19] Maritime domain awareness means finding the ships and submarines of friends and foes, understanding the entire supply chain of cargoes, identifying people aboard vessels, understanding the infrastructures within or astride the maritime domain, and identifying anomalies and potential threats in all these areas. Naval officers, however, focus more often than not on security aspects; for them, MDA boils down to a maritime targeting issue. "Targeting," in this sense, does not always involve a "kinetic effect" (a weapon striking an object). It may mean pointing out to a boarding team a merchant vessel that it should strike up a conversation with; identifying a cargo carrier as suspect so it can be held offshore for inspection; understanding the flows of personnel and cargo at a shore facility; or, when a kinetic targeting solution is required, picking out the wheat from the chaff.

Myth: "MDA Is Too Amorphous a Concept to Be Useful"
In reality—and while maritime domain awareness certainly has different meanings for Captains of Ports, masters of ships, and everyone in between—the common requirements of safety, security, the economy, and the environment resonate among all its stakeholders. This was evident at the MDA Connectivity Workshop conference held in Newport, Rhode Island, in August 2007 and attended by representatives of Australia, Canada, France, Italy, Japan, NATO, New Zealand, Singapore, the United Kingdom, and the United States. The international attendees agreed that "maritime domain awareness" was a flawed rubric and that implied links to the U.S. global war on terror were worrisome. But their primary maritime-security concerns were surprisingly similar: terrorism, illegal migration, piracy, illegal exploitation of natural resources, illegal activity in protected areas, drug trafficking, arms smuggling, and the need for security and environmental protection. That is, admittedly, a broad range of issues, but the fact that so many disparate nations share them testifies to the importance of maritime domain awareness and the prospects for partnerships to achieve it.

Myth: "MDA Is All about the Blips on My Monitor"
The reality is that MDA is not just about the blips; it's about whether the blips matter. Aggregating disparate data sets to generate a useful operational picture is an increasingly complex task because of the massive amounts of data available on all aspects of maritime activity. Fusing and analyzing those data may find anomalies that point to threat activity of interest to decision makers. The Navy's formal MDA concept lays it out as an equation: that maritime domain awareness equals global maritime situational awareness (the blips) plus maritime threat awareness (whether the blips matter).[20]

Myth: "All We Need for MDA Is AIS"

The Automatic Identification System, or AIS, is indeed a reality. It uses a signal—a transponder-based collision-avoidance system that transmits and receives real-time navigational information via VHF line-of-sight radio—that can be shared freely at the unclassified level. The International Maritime Organization (IMO) mandates its use on all passenger ships, tankers, and all other ships of three hundred gross tons and above.[21] AIS is a critical technology that enables MDA. Its use has spawned navigational information networks and "clearinghouses" in many nations; it is a key component of MSSIS; and it is available commercially.[22]

However, the Automatic Identification System has its weaknesses. It can be spoofed, its use is loosely enforced (if at all), and it provides information only on ships mandated by the IMO; potential foes know how to use it, or not use it, so as to hide their whereabouts. Moreover, due to the nature of the underlying communications protocol (known as "time-division multiplexing") that AIS employs, signal degradation in high-density environments limits the usefulness of the system as well as the value of its proposed use on smaller ships. Strategic partners have produced technical solutions that overcome this liability, by means of the Global Packet Radio Service, a system in use for many mobile phones.

The underlying issue is that neither AIS nor any other "silver bullet" will achieve maritime domain awareness. MDA requires all manner of sensors, databases, data sharing, decision aids, displays, etc. Without databases that can be rapidly and adaptively searched to develop trends on specific ships, AIS does little more than "spam" the maritime "common operational picture" with more and more blips.

Myth: "MDA Can Be Done Entirely at the Unclassified Level"

The reality is that our ability to find, fix, track, and target is considerably enhanced when classified or sensitive information is applied. There is no doubt that much of the information available to achieve maritime domain awareness is unclassified. Programs like the Container Security Initiative, C-TPAT, MSSIS, and of course AIS have been of considerable benefit to safety and security in the maritime domain. But how often will operational decisions be made on the basis of what is essentially a navigational-hazard and ship-avoidance system? As Vice Admiral John Morgan and Commander Bud Wimmer point out, "Maritime Domain Awareness is all about generating actionable intelligence, the cornerstone of successful counterterrorist and maritime law enforcement operations."[23] While unclassified information can contribute significantly to "awareness" per se, producing

actionable intelligence generally requires classified or sensitive information not available in the public domain.

Myth: "We Can Just Build Something like ICAO for the Maritime Domain"
In reality, the maritime domain has unique compliance challenges, based on culture and competitive advantage. The International Civilian Aviation Organization (ICAO), a United Nations agency, codifies principles and techniques and sets standards to facilitate border crossing for international civil aviation.[24] According to some, the IMO should be able to do the same for the maritime environment.

ICAO standards are based on the Chicago Convention of 1945–47, a document that was agreed upon only two decades after the birth of international air travel and so influenced its formative years. To speak of something similar in the maritime domain fails to take into account that freedom of the seas has been a critical aspect of commercial trade and an international standard for well over two *millenniums.*

Moreover, commercial practice makes the analogy between the maritime and air domains a poor one. Airplanes file flight plans, take off, and land. Ships file sailing plans and depart but then, in a single extended voyage, may change flags, change owners, change names, sell cargo, change their destinations, all in an attempt to make, or not lose, money in a volatile, highly competitive shipping market, and while other ships are trying to do the same.

While the development of international standards for the maritime domain based on those now in effect for the air is a laudable goal and may be possible someday, those who argue for them tend to forget that cultural change takes time, usually proportionate to how long a culture has been in place. Further, the cost would likely meet with substantial resistance from many nations. Establishing ICAO-like standards in the maritime domain is simply not achievable in the near term.

Myth: "MDA Can Be Done Virtually"
The reality is that much of what the United States has learned since the terrorist attacks of 11 September 2001 points to the legal and cultural restrictions that hamper its ability to share information. There is little doubt that no single entity or agency can be responsible for, or has the capacity to coordinate, all MDA-related activity. That fact, coupled with modern network-centric information capabilities, leads to a strong argument that "nodes" generating maritime situational awareness must be linked and that some MDA functions must be done virtually. The present approaches that have worked best include those of the National Counterterrorism Center (in McLean, Virginia), the National Counterproliferation Center (in Washington, D.C.), and the Joint Interagency Task Forces (West

and South), because they put people and systems from different agencies into the same physical structures. This enables (in fact, forces) information sharing while ensuring that information does not cross information-security boundaries.

This brick-and-mortar solution might be applied to MDA in the form of what might be called "maritime interagency task forces." They would combine elements of MHQ/MOCs, numbered-fleet command centers, the U.S. Coast Guard's Maritime Intelligence Fusion Centers, and unified combatant commands and might initially be staffed by those entities. They would also need appropriate operations and intelligence specialists from various government agencies (some of them already in the combatant commands), selected allied nations, and commercial liaisons. The mission would be to deliver regionally focused expertise and operational support, for areas of responsibilities roughly coinciding with those of the numbered fleets.

This would require a hard look at existing structures both within and outside the continental United States, in particular the relationship among MHQ/MOCs, Joint Intelligence Operation Centers in each of the combatant commands, and Maritime Intelligence Fusion Centers. For instance, the maritime security mission of the Joint Intelligence Operation Center significantly overlaps that of the MHQ/MOC, especially overseas. Given today's resource constraints, combining people and missions is worth considering. The same can be said for centers within the United States itself, where the Coast Guard fusion centers would need to be accounted for as well.

Aside from the need for increased information sharing and better support to operational forces, new tactics, techniques, and procedures would naturally flow from these maritime interagency task forces. While technology will certainly help, increased maritime domain awareness is virtually meaningless without the tools needed by the decision makers who must carry out operational responses. This is a key point, one that cross-functional teams have repeatedly made.

To be sure, "federation" across maritime stakeholders (that is, a division of labor) will continue to be required. It is also of utmost import to get "reachback" capabilities right—the ability of deployed forces to call, very quickly, upon the full informational and analytical resources of intelligence commands back home. That reachback needs to be as responsive to fleets as the FOSICs and FOSIFs once were. Setting up regional "centers of maritime excellence" with the right people, equipment, and training would be a step in the right direction.

Maritime domain awareness is neither tracks on a screen, systems that monitor white shipping, (unachievable) international standards, nor something maritime security forces have always done. Nor is it easily achieved. But achieving maritime domain awareness is critically important in today's geopolitical context, not just to guard against international terrorism but to promote commerce

and safety and to respond to natural disasters, piracy, illegal migration, and arms smuggling.

MDA is an important part of this nation's security strategy, and achieving it will require new thinking regarding the roles of national and international maritime-security forces. Establishing "maritime interagency task forces," or something similar, will go a long way toward that goal. But whatever means it chooses, the United States is a maritime nation in a maritime world—achieving maritime domain awareness is a twenty-first-century strategic imperative.

NOTES

The views expressed here are those of the author and do not reflect the official policy or position of the Department of the Navy, the Department of Defense, or the U.S. government.

1. As quoted in U.S. Homeland Security Dept., *The National Plan to Achieve Maritime Domain Awareness* (Washington, D.C.: October 2005), available at www.dhs.gov/.

2. Public Law 107-295, 25 November 2002.

3. See *National Strategy for Maritime Security* (Washington, D.C.: White House, September 2005), available at www.whitehouse.gov/.

4. In addition to the National Plan to Achieve Maritime Domain Awareness, the supporting plans are the Global Maritime Intelligence Integration Plan, the Maritime Operational Threat Response Plan, the International Outreach and Coordination Strategy, the Maritime Infrastructure Recovery Plan, the Maritime Transportation System Security Plan, the Maritime Commerce Security Plan, and the Domestic Outreach Plan.

5. For more on the Container Security Initiative see "CSI Strategic Plan 2006–2011," *U.S. Customs and Border Protection,* www.cbp.gov/linkhandler/cgov/. For more on C-TPAT see "Securing the Global Supply Chain: C-TPAT Strategic Plan," *U.S. Customs and Border Protection,* www.cbp.gov/linkhandler/cgov/trade/cargo_security/ctpat/.

6. MSSIS collects and disseminates real-time data derived from the Automatic Identification System about vessel movements in the unclassified realm and is freely shared with international partners. At present, movements of more than ten thousand vessels from over forty nations are tracked and updated in real time. See "Volpe Center Highlights May/June 2006," *Volpe National Transportation Systems Center,* www.volpe.dot.gov/; and "Global Maritime Domain Awareness Wins Innovations in American Government Award," Reuters, 9 September 2008, available at www.reuters.com. For more on the Maritime Administration, see "MARAD Maritime Domain Awareness Point Paper," *Maritime Administration,* marad.dot.gov/documents/.

7. For more on the thousand-ship navy see Vice Adm. John G. Morgan, Jr., USN, and Rear Adm. Charles W. Martoglio, USN, "The 1,000 Ship Navy: Global Maritime Network" (November 2005), and "The Commanders Respond" (March 2006), both U.S. Naval Institute *Proceedings;* and Ronald E. Ratcliff, "Building Partners' Capacity: The Thousand-Ship Navy," *Naval War College Review* 60, no. 4 (Autumn 2007), pp. 45–58.

8. "Maritime Domain Awareness: A Global Maritime Security Mission Requiring International Cooperation and U.S. Navy Leadership," COMUSNAVEUR white paper, January 2006.

9. *A Cooperative Strategy for 21st Century Seapower,* October 2007, reprinted in *Naval War College Review* 61, no. 1 (Winter 2008), pp. 7–19; also available at www.navy.mil/maritime/MaritimeStrategy.pdf.

10. Secretary Winter directed these activities in a 17 May 2007 memorandum. The $300 million figure comes from several interviews with Mr. Marshall Billingslea, the secretary's

Deputy Under Secretary of the Navy. For example see Bettina Haymann Chavanne, "U.S. Navy Will Ask for $300m for Maritime Domain Awareness," *Aerospace Daily,* 10 September 2007; Geoff Fein, "Navy's MDA Effort to Provide Greater ID of Ocean-Going Threats," *Defense Daily,* 16 November 2007; and Zachary M. Peterson, "USN to Launch 'Actionable Intelligence' System," *Defense News,* 14 January 2008. This new capability was deemed "operational capable" in August of 2008, only fifteen months after the initial Secretary of the Navy memo. See Emelie Rutherford, "Navy's Maritime Domain Awareness System 'Up and Running,'" *Defense Daily,* 4 September 2008.

11. For example, see Geoffrey Till, "New Directions in Maritime Strategy? Implications for the U.S. Navy," vol. 60, no. 4 (Autumn 2007), pp. 29–43, and "'A Cooperative Strategy for 21st Century Seapower': A View from Outside," vol. 61, no. 2 (Spring 2008), pp. 25–38; Steve Carmel, "Commercial Shipping and the Maritime Strategy," vol. 61, no. 2 (Spring 2008), pp. 39–46; Gen. Victor E. Renuart, Jr., USAF, and Capt. Dane S. Egli, USCG, "Closing the Capability Gap: Developing New Solutions to Counter Maritime Threats," vol. 61, no. 2 (Spring 2008), pp. 15–24; Scott C. Truver, "Mines and Underwater IEDs in U.S. Ports and Waterways: Context, Threats, Challenges, and Solutions," vol. 61, no. 1 (Winter 2008), pp. 106–27; and Martin N. Murphy, "Suppression of Piracy and Maritime Terrorism: A Suitable Role for a Navy?" vol. 60, no. 3 (Summer 2007), pp. 23–45: all *Naval War College Review.*

12. Some examples include Jay Carafano and Martin Edwin Andersen, *Trade Security at Sea: Setting National Priorities for Safeguarding America's Economic Lifeline,* Backgrounder 1930 (Washington, D.C.: Heritage Foundation, 27 April 2006), available at www .heritage.org/; Michael D. Greenberg et al., *Maritime Terrorism: Risk and Liability* (Santa Monica, Calif.: RAND, 16 October 2006), available at www.rand.org/pubs/; and *Maritime Security* (Arlington, Va.: Lexington Institute, January 2008), lexingtoninstitute.org/ docs/796.pdf. In addition, GlobalSecurity.org devotes a well informed page to MDA, www .globalsecurity.org/intell/systems/mda.htm.

13. *National Strategy for Maritime Security,* p. 1.

14. Data fusion, properly, is the process of combining data or information to determine what significant knowledge is present. See David L. Hall and James Llinas, *Handbook on Multisensor Data Fusion* (Boca Raton, Fla.: CRC, 2001).

15. See Pranab Dhal Samanta et al., "Lashkar Came via Sea from Karachi, Used Gujarat Boat to Reach Mumbai," Indian Express .com, 28 November 2008, www.indianexpress .com/; "Terrorists May Have Hijacked Porbander Fishing Boat," *Times of India,* available at timesofindia.indiatimes.com.

16. The FOSIFs and FOSICs were in Norfolk, London, Pearl Harbor, Rota (Spain), and Kamiseya (Japan). For detailed review of how operational intelligence supported Navy operations, see Christopher A. Ford, David A. Rosenberg, and Randy Carol Balano, *The Admirals' Advantage: U.S. Navy Operational Intelligence in World War II and the Cold War* (Annapolis, Md.: Naval Institute Press, 2005).

17. See Robert C. Rubel, "The Navy's Changing Force Paradigm," *Naval War College Review* 62, no. 2 (Spring 2009), pp. 13–24.

18. See "Maritime Headquarters with Maritime Operations Centers: An Enabling Concept for Maritime Command and Control," available at *Naval Supply Systems Command,* www .navsup.navy.mil/, p. 8.

19. U.S. Homeland Security Dept., *The National Plan to Achieve Maritime Domain Awareness,* p. ii [emphasis added].

20. U.S. Navy Dept., *Maritime Domain Awareness Concept* [Washington, D.C.: Navy Staff, 29 May 2007], available at www.navy.mil/ navydata/cno/.

21. "International Convention for the Safety of Life at Sea (SOLAS), 1974 (with amendments)," chap. 5, available at www.imo.org/ Conventions/. Warships are excluded.

22. AIS Live, for example, is a commercial website (www.aislive.com/trial.html) on which subscribers can see worldwide, AIS-derived vessel information.

23. John Morgan and Bud Wimmer, "Enhancing Awareness in the Maritime Domain," *CHIPS* (April–June 2005), available at www.chips .navy.mil/.

24. See the ICAO website, www.icao.int.

REVIEW ESSAY

STRATEGIC ASSESSMENT: GETTING IT RIGHT

Richard Norton

Brooks, Risa A. *Shaping Strategy: The Civil-Military Politics of Strategic Assessment.* Princeton, N.J.: Princeton Univ. Press, 2008. 315pp. $26.95

An impressive array of cross-disciplinary studies has long pointed to the critical importance of accurate assessment as a precondition for successful decision making. The argument is as simple as it is powerful: get the assessment right and you still might fail, but get it wrong and you are all but guaranteed to fail. Nowhere is the importance of assessment more important than in the arena of national security, where leaders risk their states' futures and, in cases involving armed conflict, the lives of their citizens and, at times, national survival.

Given the importance of strategic assessment, any insight into how to improve the process and protect against failure is both useful and welcome. *Shaping Strategy* provides just such insight. With work clearly rooted in what scholar Graham Allison has titled "government politics," Risa Brooks argues that two key variables—the degree to which military and political leaders dominate power relationships among government leaders and their respective organizations, and the degree to which those leaders agree or disagree over military and political preferences—are critical in the quality of strategic assessments.

Brooks breaks down the components of strategic assessment into four discrete subcategories: information sharing, strategic coordination, structural competence,

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and the authorization process. This provides an elegant matrix by which to analyze the impacts of different power relations and preferences on strategic assessment.

She first looks at Egypt in the 1960s and 1970s, essentially contrasting the strategic assessments of Gamal Abdel Nasser and Anwar el-Sadat. Her work in this regard is excellent; it is painstaking and convincing. She then briefly reviews six additional cases: five are Great Britain before the First World War, Germany in the same years, Great Britain during the First World War, Pakistan from 1997 to 1999, and Turkey from 1996 to 1999. The sixth and most recent, lesser case focuses on the strategic assessment conducted by the United States prior to initiating Operation IRAQI FREEDOM, the 2003 war with Iraq.

Brooks concludes that strategic assessment will be more successful when political leaders are dominant in power relationships and when divergence of preference from their military leaders is low. In contrast, strategic assessment is most likely to be poor when military and political leaders share power and preference divergence is high. In the majority of the selected cases, the evidence for this conclusion is compelling.

However, the case of the United States raises some questions. Brooks holds the U.S. strategic assessment in the case of Iraq to have been very poor, basing this judgment on the clear failure of postcombat stability operations. She points out that relations between Secretary of Defense Donald Rumsfeld and his senior military leaders initially had been marked by significant strain, only to note that by 2003 most, if not all, senior military leaders had been selected by Rumsfeld, greatly reducing those tensions. Brooks also fails to address the contradiction between the stunning successes of U.S. forces in the combat phase of IRAQI FREEDOM in contrast to later failures in stability operations. In other words, how did the same people get the first part so right and the second part so wrong? She is also silent on how the State Department was all but excluded in planning Phase IV (the occupation), and on the degree to which Secretary Rumsfeld may have been influenced by strategic assessments made by different government agencies, such as the CIA, as well as by Iraqi exiles and powerful political individuals, such as the vice president. This is interesting, because Brooks's approach—examining power distribution and preference divergence—should shine an explanatory light on these intracabinet and extramilitary relationships as well.

One of the major strengths of *Shaping Strategy* is Brooks's refusal to oversell her research and conclusions. National-security decision making is one of the most complex of human activities. It does not lend itself to prescriptive panaceas or simplistic explanatory theories. Brooks's research is all the more

important because it does not pretend to do either but rather provides a useful tool and a practical caution for explaining why strategic assessments tend to fail under certain conditions and thereby how national leaders might be able to reduce the risks of such failures.

BOOK REVIEWS

"A WAR NOT YET FINISHED"

Ricks, Thomas E. *The Gamble: General David Petraeus and the American Military Adventure in Iraq, 2006–2008*. New York: Penguin, 2009. 394pp. $27.95

Thomas Ricks begins his latest chronicle of the American strategic experience in Iraq where he left off in *Fiasco* (2006). In this account, Ricks uses his familiar journalistic approach to describe how the civilian and military leaders arrived at a change of policy and strategy, commonly known as "the surge," in the war in Iraq. Ricks's new book appears to be more even in its treatment of the leaders and the new strategy than was *Fiasco,* with its prosecutorial tone. In spite of his upbeat assessment of the American leaders, however, Ricks ends this volume with measured, if not pessimistic, projections for the future of Iraq.

Ricks covers familiar developments described in Bob Woodward's *The War Within,* but he sheds new light on the role of General Ray Odierno in pushing for a change of strategy. Specifically, Ricks recounts how Odierno corresponded with his mentor and old boss, retired general Jack Keane, to change the "bridging strategy" then advocated by Generals George Casey and John Abizaid, and by the Pentagon leadership. Not wanting to lose this war on

his watch, Odierno relied on Keane and American Enterprise Institute strategist Fred Kagan to change the direction of the strategy in Iraq. They sought to change the strategy of transitioning power to corrupt and impotent Iraqi security forces into a new strategy of providing security for the Iraqi people. The most remarkable aspect of Ricks's story is that this change in strategy developed outside the president's designated National Security team and against the recommendations of the Joint Chiefs and the Iraq Study Group. According to Ricks, Keane and Kagan clearly led the way in the White House to get more American combat forces into Iraq.

Ricks describes in some detail how events in al Anbar province greatly influenced a key aspect of the new strategy. The Marines' experience with the reconciliation movement, or "Sunni Awakening," of tribal leaders in al Anbar in 2005 and 2006 was the pivotal instance showing how to turn former belligerents into potential allies. In effect, the American forces in al Anbar were already practicing the tactics and techniques of the new counterinsurgency (COIN) manual

recently published by General David Petraeus and a Fort Leavenworth team.

Ricks highlights how Odierno adopted this new COIN approach in the employment of the five surged combat brigades. Instead of putting all the additional forces into central Baghdad to "secure the people," Odierno deployed them into the fractious "Baghdad belts." During the surge, American troops would not only live among the Iraqi people in "joint security stations" and combat outposts but also target the insurgent lines of operations running from Syria and Iran into central Baghdad.

Overall, this appears to be a balanced narrative of a war not yet finished. In the last section Ricks considers the lasting effects of the "surge" strategy pursued in 2006–2008. He winds up with a discussion of that famous Petraeus question of 2003, "How does this end?" Ricks notes that perhaps this war does not end. Clausewitz declared, "Even the ultimate outcome of war is not always to be regarded as final"; in Ricks's view, that will be true of the outcome of this war.

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Deudney, Daniel H. *Bounding Power: Republican Security Theory from the Polis to the Global Village.* Princeton, N.J.: Princeton Univ. Press, 2007. 391pp. $17.96

Paradoxically, this is one of the most innovative yet least original books written in the past decade on the theory and practice of international relations. Daniel Deudney synthesizes a broad understanding of the history of Western political theory with an equally broad study of contemporary world politics to recover what he calls "republican security theory." He sees this theory as having developed from the Greek polis through the Italian Renaissance to the Enlightenment (in the thought of Montesquieu especially), to the American founding to the present, and as having important implications for nuclear proliferation and disarmament in the "global village" of our time. Deudney demonstrates conclusively that the leading schools of international relations today—realism and liberal internationalism—are both intellectual "fragments" of this older tradition, with the fragmentation often obstructing practical efforts to reconcile security from external threats to the liberty of public citizens and private individuals.

Such a reconciliation is the raison d'être of republican security theory and practice, though as Deudney shows, the viability of the endeavor depends on learning much from the school of hard knocks. Twenty-five hundred years ago, the members of the Delian League sought to secure their independence from Persia by following the leadership of Athens, but in so doing they jumped from the frying pan of external anarchy into the fire of Athenian imperialism. The Roman republic, if only because its more inclusive approach to citizenship enabled it to grow stronger as it expanded, proved more successful at uniting external security with internal liberty than had Athens or the Delian League, but ultimately it got too big. Generals like Caesar, Pompey, and Augustus were able to count on the private loyalty of soldiers to help them establish

despotic power on the ruins of republican freedom. Studying this checkered past with care, both Niccolò Machiavelli (whom some see as the founder of realism) and Charles de Secondat, Baron de Montesquieu (who could be considered a founder of liberal internationalism), sought ways to combine the security advantages of large empires with the freedom (from military rule especially) of healthy republics.

What practical use might this mixed success of republican security theory be today? Clearly, it lies at the origins of the two grandest experiments in international cooperation of the twentieth century—the League of Nations and the United Nations. Rather than view the less-than-complete success, and sometimes patent failure, of either as proof that republican security theory has reached a point of diminishing returns, Deudney concludes with an analysis of how early experiments in nuclear arms control might suggest ways to apply republican security theory to avoid the danger of nuclear violence while preserving individual freedom. In this respect, Deudney appears to have more in common with contemporary liberal internationalists than with today's realists, but he has no patience with charges that his project is utopian. It has worked in the past, and it continues to work in the American union. With enough intelligence and determination, he argues, it might be the only practicable solution to the global problems of this century, which no single state can address on its own. In making this claim, Deudney has gone, like the starship *Enterprise* (which served a federation of republics!) where few today have gone before, to help found a new discipline, one that might be called

"world political theory." At a time when U.S. maritime strategy has become ever more concerned with the security of the global system, this is a book that thoughtful strategists will need to read again and again.

KARL WALLING
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Coicaud, Jean-Marc. *Beyond the National Interest*. Washington D.C.: United States Institute of Peace Press, 2007. 297pp. $19.95

It should come as little surprise that Jean-Marc Coicaud, a noted French scholar with extensive experience at the United Nations, sees the need for a fundamental change in the way the international system addresses its most pressing security problems. He bemoans the fact that "narrow national interests" have made prompt, effective multilateral peacekeeping interventions on behalf of humanitarian needs very difficult. In his *Beyond the National Interest* he offers prescriptions to alleviate this situation.

This short book covers in some detail the history of international humanitarian interventions since the 1990s, in search of trends and lessons learned. The author conveys a sense of optimism that the end of the Cold War presented a perfect opportunity for universal human values to displace traditional values according to which sovereignty was sacrosanct and nation-states responded only to direct external threat. He optimistically proclaims that NATO was moving forward progressively in this direction.

Unfortunately, his detailed historical examples consistently belie this

optimism, as some protagonist (normally the United States) always allows its conduct to be driven by the atavistic notions of sovereignty and physical security. In fact, the United States (particularly the last Bush administration) comes out as the book's principal villain, although the Clinton administration also takes its hits. Owing to its superpower status, the United States is directly involved in every incident in which humanitarian intervention is a possible course of action, and its responses never meet the author's high standards.

While Coicaud's facts and historical analysis are correct and fundamentally sound, a reader might get the impression that it is only a matter of time before the entire world is persuaded to see the *responsibility to protect*—the international community sending in forces to protect the citizens of an offending country—much as an enlightened European does now. I am certain that Coicaud is buoyed by the advent of the Obama administration in hopes that the United States will eventually join in this enlightenment. Unfortunately, his optimism is probably misplaced, for two reasons. First, none of today's emergent powers (China, Russia, India, or Brazil) have been proponents of what the author calls "conditional" sovereignty. If anything, they hold dearly their sovereignty and support this right for other nation-states. The second point forces us to focus on the title of the book.

That is, national interest is the real culprit. As long as nations constitute the world's central cast, there is little likelihood that it will achieve Coicaud's idealistic standards. Even his recommendations to strengthen the United

Nation's peace-enforcement and humanitarian roles are largely bureaucratic and peripheral, suggesting that the author is also aware of the fundamental resistance. As long as the UN remains nationally based, the likelihood that its members will be driven by "supranational" interests will be slim. Indeed, simply getting *beyond* the national interest is not enough. The international community must adopt *supranational* interests or it will forever be hampered by the primacy of "security issues" and "self-centered nationalism," which, unfortunately for Coicaud, is likely to be a long time coming.

Although a welcome addition to those advocating for the rights of individuals over those of nation-states, the book unfortunately fails to deal meaningfully with the real obstacles to the ideal. Further, since much of this book is a diatribe against the Bush administration, its salience is increasingly historical.

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Cohen, William A. *A Class with Drucker: The Lost Lessons of the World's Greatest Management Teacher.* New York: AMACOM, 2008. 248pp. $24.95

Krames, Jeffrey A. *Inside Drucker's Brain.* New York: Penguin, 2008. 257pp. $24.95

Peter Drucker, considered the father of modern management, died in 2005 at the age of ninety-five. For six decades he consulted with industry and government leaders and taught at New York University and the Claremont Graduate School of Management, publishing thirty-nine books, including one on

Japanese art. Drucker's principles of leadership, responsibility, management, and strategy transcended organizational mission, whether for-profit, nonprofit, or military.

It is not surprising that several books about Drucker have been published since his death. One interesting one, *A Class with Drucker,* is by Bill Cohen. Cohen graduated from West Point and was a PhD student of Drucker's. He served as a major general in the Air Force reserves, worked in the defense industry, and remained in touch with Drucker for thirty years. The goal of Cohen's book is to share lessons from Drucker's classroom.

Peter Drucker was an exceptional thinker and writer. His perspectives on organizations were refreshingly unorthodox and expressed with piercing logic. Drucker drew deeply from global history and economics. Although he was an academic, his audience was the practitioner. Ethics and social responsibility themes permeated his writing and teaching. Many concepts that are now part of everyday organizational vocabulary originated with Peter Drucker, such as management by objectives, knowledge workers, decentralized management, and strategic leadership in business.

Two things make Cohen's book interesting. One is Drucker's influence as his mentor and teacher, and the other is his own military perspective. Cohen interweaves Drucker's concepts of leadership, strategy, ethics, and professional development with his own military education and experiences, often adding candid personal reflection and revealing anecdotes.

One revelation emerged during a class session when a student asked Drucker how he got started as a "management consultant." Drucker talked about being mobilized for World War II, armed only with a PhD and experience in economics. Drucker's job classification in the Army was "consultant," but neither he nor his colonel had any idea what that entailed. Drucker started asking the colonel about the group's goals and resources, and a few days later he went back with a report of priorities and alternatives. As it turned out, the group was quite successful in its mission.

Cohen affirms that Drucker's principles of strategy and leadership are tightly coupled to personal responsibility, and he elaborates on the distinctive challenges between tactical and strategic decisions for the military leader. The strategic leader must persistently ask the right questions; as Drucker would state, "You can't get *there* unless you know where *there* is." To be a strategic leader, one must avoid developing strategy by formula and instead devote time to self-development by expanding one's knowledge and perspective. Drucker's advice for professional development was to "read, write, listen and teach . . . and strive for expertise in an area outside your profession."

Drucker lectured his students about what to do, not *how* to do it. Cohen sometimes takes a Drucker principle and expounds on it using his own "boilerplate" advice. Some of the elaborations are unremarkable, but others are a genuine fusing of Drucker's influence with the author's experience.

Another book on the subject published about the same time is *Inside Drucker's Brain,* by Jeffrey Krames, a seasoned writer who has written extensively on

General Electric's Jack Welch. In 2002 he published a work on Donald Rumsfeld and his leadership style.

Krames's new book draws on a six-hour interview that took place in Drucker's home about two years before he died, as well as upon Drucker's writings. As Krames sat down for the first (and apparently only) interview, Drucker mentioned that Jack Welch had sat in that same upholstered chair twenty years earlier, just before Welch became the legendary CEO of General Electric.

The goal of Krames's book is to capture the relevance of Drucker's most important management philosophies and strategies. Reading this book, one gets the sense that the author wants to ensure that Drucker's contribution to management knowledge does not diminish with time.

His concern has merit. Drucker's career path was varied and unconventional, so he was never really viewed as a true academic, especially by other academics. Krames points out that although Drucker had a seminal influence on such leaders as Welch, Tom Peters, Jim Collins, Michael Dell, Andy Grove, and Bill Gates, Drucker is rarely referenced in management textbooks. Perhaps one reason is that Drucker was not a self-promoter. You will not find a Drucker Consulting Group, spin-off publications, or Drucker training workshops. Drucker declared, "My aim has never been academic, that is, to be recognized; it has always been to make a difference."

Like Cohen, Krames centers on leadership, strategy, and social responsibility, covering much of the same ground. However, Krames has more of a business and historical perspective than

Cohen, who writes from a military vantage point. Each book makes its own unique contribution. For instance, Krames's extensive insights into General Electric amplify the little-known influence Drucker had on the company and its iconic leaders. On the question of whether leaders are born or made, Drucker said that some leaders are naturals (like Welch) but that there are not enough of them—so leaders have to be made! That is one of the reasons why General Electric has done so well; the company has been developing leaders at its renowned Crotonville Training Center since the 1950s. Drucker was a founder of Crotonville, along with Ralph Cordiner, General Electric's CEO at the time. For readers interested in where great leaders get their ideas, the book's chapter entitled "Drucker on Welch" is quite interesting.

However, it seems presumptuous to say that after only one interview and a few letters, the author got "inside Drucker's brain." The reader is left wondering why there was no second or third interview.

HANK KNISKERN
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Wukovits, John. *One Square Mile of Hell: The Battle for Tarawa.* New York: New American Library, 2006. 320pp. $15

One Square Mile of Hell relates the story of the November 1943 battle for the Tarawa Atoll from the personal level of the Marines who endured this remarkably bloody fight. John Wukovits makes use of firsthand interviews with veterans of the operation, while also citing personal letters and diaries. The result

is a personal history that draws the reader into the lives of the corpsmen, privates, lieutenants, and colonels who grimly made their way across the central Pacific.

As events unfold, Wukovits traces the lives of several Marines as their paths converge on Tarawa. The marriage proposals and strong family ties ominously set the stage for the tragedies that would follow, although the general historical discussion of the war leading up to Tarawa is at times made awkward by the intermixed personal story lines.

The assault on Betio, a strip of sand and coconut trees two miles long and half a mile wide, became a bloody slugfest. There was little room to hide or maneuver on the island, and the frontal assaults by the Marines produced unprecedented casualty ratios. As a battalion commander emphasized to his men, there were two choices: move forward or die. Complicating the operation was the fact that amphibious planners had utilized outdated charts and inadequate tide tables to determine water levels over the island's outer reefs, resulting in numerous groundings and unnecessary exposure to enemy fire. After three days of brutal, hand-to-hand fighting, the Marines subdued the Japanese defenders and claimed a costly victory.

A common theme of the accounts is the incredibly adverse battle conditions. The limited space and high casualties resulted in a layer of death and carnage over the entire island. The equatorial sun and legions of flies added to the misery, but it was the smell of death and decay that lingered in one's mind. "The smell was inescapable," wrote a correspondent; "it evoked instant and

nightmarish memories. . . . Betio was nothing but stink and death."

Besides being a testament to the courageous leadership and fighting spirit of the Marine Corps, the Tarawa operation raised questions in 1943 regarding the degree of force that should be employed in war. The issue has been continually debated following the dropping of atomic bombs on Japan, and it is still argued today in connection with harsh interrogation techniques used on suspected terrorists.

Time reporter Robert Sherrod, who accompanied the Marines during the Betio landing, struggled to reconcile what he saw at Tarawa with the clean, edited version of war presented to the American home front. "Americans," he wrote, "are not prepared psychologically to accept the cruel facts of war." Sherrod's observation makes *One Square Mile of Hell* poignant indeed for Americans today.

While it is noble to memorialize the courage and sacrifice of the Marines at Tarawa, it is equally important to remind ourselves that victory comes at a steep price. Sherrod regarded the carnage of Tarawa as "the most haunting memory of World War II." Indeed, the story of Tarawa should haunt all Americans.

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Fischer, David Hackett. *Champlain's Dream: The European Founding of North America.* New York: Simon and Schuster, 2008. 834pp. $40

David Hackett Fischer writes of Samuel de Champlain, who founded French

Quebec four hundred years ago, that "[Champlain] wrote thousands of pages about what he did, but only a few words about who he was." It is well for our own and future generations that Fischer, in his *Champlain's Dream,* has now splendidly written about both the admirable man and his remarkable deeds. In this, another of his signature and wonderfully readable narrative histories (he is also the author of the majestic 1989 *Albion's Seed* and the Pulitzer Prize–winning *Washington's Crossing* of 2004), Fischer presents Champlain as a master mariner, explorer, cartographer, ethnologist, courtier, and soldier, but above all as a deeply humane person in a world that was anything but. Fischer writes that Champlain "had a dream of humanity and peace in a world of cruelty and violence. He envisioned a new world as a place where people of different cultures could live together in amity and concord. This became his grand design for North America."

Champlain pursued this grand design with astounding skill, perseverance, and stamina, crossing the North Atlantic twenty-seven times between 1599 and 1635 without losing a single major ship. In New France (now Canada) he faced cold, isolation, hunger, mutiny, corruption, war, and other hardships almost beyond imagining. Among his many accomplishments, what stands out is perhaps the balanced relationship that Champlain formed with the indigenous people. He had an insatiable curiosity about the complex Indian cultures he encountered and was genuinely interested in what he could learn from them,

an attitude that resulted in numerous long-lasting alliances, respect, and trust.

On the eastern side of the Atlantic, he faced a far different but equally treacherous environment. It took deft and constant lobbying within the French court to maintain royal support for his daring enterprise in the New World.

Champlain did all this, Fischer explains, not for conquest or riches but "to increase the power and prosperity of France, to spread the Christian faith, to learn more about the world, and to bring together its many people in a spirit of humanity." Fischer is scrupulous in his research and in distinguishing established fact from assertions based on less-certain accounts. His book includes sixteen appendixes addressing such diverse subjects as Champlain's separate voyages, the essay he wrote on leadership in 1632, his ships and boats, and the Indian nations in Champlain's world. There are also thirty-six pages of "memories of Champlain" that explore images and interpretations of the man from 1608 to 2008. Fischer concludes his commanding work with 161 pages of notes, bibliography, and credits.

Fischer's prodigious research persuaded him that Champlain was a dreamer, who imagined "a New World where people lived at peace with others unlike themselves." In this grand book Fischer superbly tells the story of Champlain the man, who surmounted the challenges he faced with fairness, prudence, and faithfulness to his dream.

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REFLECTIONS ON READING

Professor John E. Jackson is the Naval War College's manager for the Navy Professional Reading Program

I cannot live without books." So wrote Thomas Jefferson to John Adams in 1815. Jefferson, one of the most learned founders of the Republic, amassed the largest personal collection of books in the United States. After the British burned the Library of Congress during the War of 1812, he sold 6,500 books from his collection to Congress to reestablish its library. Nearly two centuries later, the Navy's leadership bought ten times that number of books, over sixty-five thousand, when it established the Navy Professional Reading Program (NPRP) in 2006. In both cases, the intent was to make great books more readily available to improve the lives of America's citizens.

The sixty titles included in the initial rollout of the NPRP and the five new titles released in 2009 are excellent books that cover a wide range of topics. They do not, however, necessarily constitute the best or only books of value to professionals in the maritime services. In fact, the Chief of Naval Operations (CNO), Admiral Gary Roughead, encourages sailors to "use these titles as a *starting point* to expand your intellectual horizons." The NPRP website, www.navyreading.navy.mil, provides summaries of the sixty primary books and also information on several hundred other titles in the Supplemental Reading List. This list is designed to help readers who want to delve into greater detail on concepts they may have encountered while reading primary selections. Especially noteworthy books on the Supplemental Reading List include:

- *The Innovator's Solution,* by Clayton M. Christensen and Michael E. Raynor, a follow-up to *The Innovator's Dilemma* (a primary selection in the NPRP), offers suggestions on ways in which leaders and managers can deal with massive change and disruptive technologies. The authors note that while experience in dealing with change is important, equally important is that leaders "have wrestled with it and developed the skills and intuition to meet the challenges successfully the next time." This book is written in a business context, but many of its lessons apply to leaders in military service.

- *China Goes to Sea,* edited by Andrew S. Erickson, Lyle J. Goldstein, and Carnes Lord. Throughout Asia today, China dominates the conversation. Within this dialogue, China's turn to the sea and its development of a blue-water capability have economic, diplomatic, and military implications. This valuable new book from the Naval Institute Press provides in one volume a comprehensive assessment of China's naval development, the principal historical precedents, and the complex thought processes that guide the Chinese navy's leadership.

- *Wired for War: The Robotics Revolution and Conflict in the 21st Century,* by P. W. Singer, is a truly remarkable and highly readable study of the impact that unmanned/robotic systems are having today and will no doubt have tomorrow on the conduct of warfare. Anthony Lake, former U.S. national security adviser and a professor of diplomacy in the School of Foreign Service at Georgetown University, says of this book: "Singer's book is as important (very) as it is readable (highly), as much a fascinating account of new technology as it is a challenging appraisal of the strategic, political and ethical questions that we must now face. This book needs to be widely read—not just within the defense community but by anyone interested in the most fundamental questions of how our society and others will look at war itself." Another reviewer stated: "In no previous book have I gotten such an intrinsic sense of what the military future will be like. Lively, penetrating, and wise. . . . A warmly human (even humorous) account of robotics and other military technologies that focuses where it should: on us."

These are just three of the several hundred suggestions for additional reading found on the NPRP website. In early 2009, CNO noted in a Navy-wide message, "Reading, discussing, and understanding the ideas and concepts found in the NPRP will not only improve our critical thinking, it will also help us become better Sailors, better leaders, and better citizens. As President John Adams once warned, 'A fighting spirit without knowledge would be little better than a brutal rage.' I encourage all personnel to renew their fighting spirit through the power of professional reading."

We hope that the NPRP primary selections and the suggested additional readings will serve as roadmaps to books that contribute to the professional development of the service.

JOHN E. JACKSON